EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME REGARDING SELF CARE MANAGEMENT IN TERMS OF KNOWLEDG AND PRACTICE AMONG PATIENTS WITH COPD ADMITTED IN IRT PERUNDURAI MEDICAL COLLEGE HOSPITAL, PERUNDURAI, ERODE DISTRICT.

A DISSERTATION SUBMITTED TO
THE TAMILNADU DR. MGR MEDICAL UNIVERSITY, CHENNAI
IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTER OF SCIENCE IN NURSING

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Certified Bonafide Project Work

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COLLEGE SEAL

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CHAPTER – I

INTRODUCTION

BACKGROUND OF THE STUDY:

The state of one's health in reflective of an individual's ability to meet life's challenges and maintain his quality of life for optimal functions. Health is a resource for every day life and not the objective of living. Health is a positive concept emphazing physical, mental and social and spiritual well being and not merely the absence of disease or infirmity. A disruption in the equilibrium results in illness. Illness is a personal state in which the person feels ill due to altered body function resulting in a reduction of his capacities.

Non – Communicable disease are great burden to the nations. Globally, non communicable diseases are increasingly recognized as a major cause of mortality and morbidity. Nearly 75% of the total population lives with non- communicable diseases. This heavy increase is due to Westernization, urbanization and industrialization which has changed the economic social and demographic situation. One such illness is COPD.

WHO, (2005)

COPD, the most common chronic lung disease is a preventable and treatable disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive response of the lungs to noxious particles and gases.

Lewis et.al., (2007)

Demographic transition combined with urbanization and industrialization has resulted in drastic changes in the environment and in the life style of the people. COPD is more prevalent due to cigarette smoking, Pollution from industries, smoke and dust from increasing number of motor vehicles, Occupational hazards and change in the living environment. The presence of chronic illness like COPD is explicitly due to deteriorated environment and change in the living condition.

COPD is more prevalent in urban than in rural areas. High levels of urban air pollution are harmful to persons with existing lung disease where as 3 billion people living in urban areas are reposed to outdoor air pollution and indoor air pollution and 2 billion people are exposed to solid fuel combustion which represents one of the major risk factor.

Lingeran ,A et.al.,(2009)

Increasing prevalence of COPD with advancing age may reflect the cumulative exposure to smoke and loss of elasticity. COPD is commonly seen in older adults than in younger age group.

Lewis et.al.,(2007)

COPD is more Prevalent in males than in females. The WHO stated that the world wide prevalence of COPD is 0.8%. The estimated prevalence ranges from 0.04% in female aged between 15 to 44 years and 3.51% in men over 60 years. Generally COPD is increased in men and is about 6.5% and 3% in female.

Halbert, et al.,(2003)

Morbidity and mortality increases with age. Lung function which reaches its peak level in young adults starts to decline in the third and fourth decades of life, there after diminished function is noticed. People live longer with COPD. The global aged population over 60 years is estimated to be 20% and 13.5% suffer from COPD, 4.5% are between 50 to 59 years and 1.1%between 20 to 49 years and likely to increase by 50% by 2020 . They face problems on higher disability, higher mortality frequent hospital admissions and high cost of treatment and the co-morbidities.

Patients with COPD spend their lifetime coping with their exacerbated symptoms and frequent hospitalizations. This affects the person's physical, emotional and social dimensions of daily life. The constant airflow limitations and inflammation seriously disrupts the normal life of a person. Socially the person is isolated from the family, unable to attend and participate in social activities, decreased social interactions, changes in roles and responsibilities and social acceptance resulting in change in quality of life for individuals and their families over a prolonged period. Physically, patients with COPD face physical impairment which affects daily activities and self care activities which creates economic, social and personal burden for patients and their family.

Zenica ,A. (2004)

Economically they are unable to work effectively while at work. So people with COPD have a significantly lower likelihood of attachment to the labor force. It is not only due to physical impact but also psychological deterioration of a person is evident. He faces stress, anxiety and finally depression due to chronicity of the illness.

The direct cost associated with COPD are the value of health care resources devoted towards diagnosis and medical management of the disease and indirect cost reflect the momentary consequences of disability, missed work, Premature mortality and caregiver cost or family cost resulting from illness. When medical costs for COPD are compared across countries, the data's are similar, approximately 65 dollars for U.k, 60 dollars for Sweden, 87 dollar for USA.

Work exposures are a factor for people with COPD, 19.2% of COPD patients were attributable to work exposure and 18% of COPD patients have lung impairment. It is the leading cause of lost work days. Approximately 41,300 are unable to attend to work per 100,000 populations. Productivity is lost to a total of 28.5 billion annually.

Pawels and Rabe,(2004)

About 9% to 30% of patients are undiagnosed despite having symptoms consistent with COPD and up to 65% patients do not receive regular treatment. In Europe, COPD related expenses for outpatients care is 4.7 billion Euros and inpatients care generates costs of 2.9 billion Euros. In Indian about 30% of annual income is spent on COPD management and 15% is spent on tobacco product.

WHO, (2005)

Mortality attributable to COPD has increased sharply and COPD is the fifth leading cause of death and to the fourth place in 2030 world wide. The death rate is 5.1% in the year of 2004. Globally, united states have the highest mortality rate. Mortality rate due to COPD in European countries are 2to 3times higher in Male than in females.

WHO, (2004)

This imposes huge socio – economic burden on the individual and society.

NEED FOR STUDY :

COPD is the leading cause of death world wide and in the fifth leading disease in the World. Global prevalence ranges from 3%-18.2%. About 63.6 million are affected in the world and 13.2 million in USA and 26.6 million face severe disability.

WHO, (2005)

World Bank estimates (2000) COPD is responsible for > 29 million disability adjusted life year and one million death per annum around the world. COPD is currently the 12th leading cause of disability world wide and is expected to fifth leading cause of disability by 2020.

WHO /World bank global burden of disease study (2001) estimated global prevalence of COPD to be 9.33 per 1000 population for men and 7.33 per 1000 for Women. The prevalence is higher in industrialized countries.

Mannino et.al., (2007) estimated the prevalence rate of COPD is increased in male and they are continuing to rise in women also. This trend is due to the cumulative effect of chronic smoking in women and the ageing of the population in the world. The men have incidence of 64% 9.33 per 1000 population and the female have incidence of 49% i.e. 7.33 per 1000 people and death rates from COPD increased among women relative to men. Increased Prevalence among female is estimated in developed countries like USA with 18/100 cases Australia – 13/100 population.

Lewis et.al., (2007) estimates 10.7 million adults in the united states over the age of 18 have COPD. COPD is the fourth leading cause of death in the United States. Since 2000, more women than men have died from COPD

Approximately 16 million people in the united states have COPD is responsible for over 13.4 million people making outpatient visits per year and is the third most frequent Justification for home care services.

National centre for health

Statistics (2000)

Canadian lung association (2007) estimates 3 million Canadians have COPD and 105 million are diagnosed, 1.6 million remain undiagnosed COPD is Canada's fourth leading cause of death.

Lung and Asthma information agency U.K.(2006) estimated the prevalence of COPD is about 1.5% and 10% faces reduced lung function. COPD continues to be responsible for over 90,000 hospital admission a year. 27,478 men and women in U.K. died of COPD and vast majority of 90% deaths were among people aged over 65 years. About 30% are admitted with COPD for the first time for readmitted within three months and 15% patient admitted died within three months. More than 800 million direct cost of hospitalizations and indirect cost of 24 million spent on lost working days per annum.

European Lung white book (2006) estimated the prevalence of clinically relevant COPD varies from 4% to 10% of adult population. The estimated cases were 11.3 million in Europe and mortality rate is highest to more than 80 per 1,00,000 in Greece, Sweden, Iceland, and Finland.

Minerstero., (2000) estimated the prevalence in Italy as 5.5% in males and 3.7% in females and generally 43.4% are affected from COPD, 7 million outpatients per year and 1, 30,000 hospitalizations in a year. It is 5th leading disease with more expenditure on hospital care. It was estimated that 2.7million suffer from COPD in Germany 2.6 million in Italy and 2.6 million in France.

Zhan Shan zhong., (2004) estimated the prevalence of COPD in china as 82% about 32.8 million and 7.8 in urban areas and 8.8% in rural areas out of this prevalence rate in men affected are more to about 12.4% where as women are 5.1%

WHO (2004) estimated the incidence in Eastern Mediterranean as 52.7 million with prevalence of 3.3 million and 1.3% have disability adjusted life years. 19.10% people suffer from COPD in Turkey, 17.20% in Lebanon.

WHO, (2004) estimated the incidence of COPD as 46.2 million in western pacific region and prevalence being 20.2% the prevalence in Africa is 1.5 million. The lowest prevalence in Algeria of 5% and highest prevalence among African countries, 24.18% in South Africa and 10% people suffer from COPD in Egypt, 14% in Morocco and 17.20% in South Korea.

WHO, (2004) and national institute of chest disease estimated the prevalence of COPD in Asia Pacific Region as 6.3% and COPD is the 6th leading cause of death in Singapore and prevalence is 3.5% and 4.6% of the total death are due to COPD.

WHO (2004) and national institute of chest disease estimates the prevalence in Hong Kong is 3.5%, in Malaysia 4.7%, 6.3% in Philippines, 5.6% in Indonesia, 4.7% in Japan, 5.4% in Taiwan which is the 6th leading cause of morbidity, 6.7% in Vietnam and 5% in Thailand and 4.24% prevalence in Bangladesh.

Average death rate in Asia ranged from 6.4 to 9.2 per 10,000 with COPD in men and 2.1 to 3.5 per 10,000 populations in women.

WHO, (2004)

Indian journal of chest disease (2005) estimated that in India prevalence of COPD ranges from 1.2% to 14% in 2006 the prevalence was 4.1%, prevalence is higher in Kashmir to 7.55% in smokers and 10.56% in people living in poorly ventilated houses, prevalence in Punjab is 12.5%, Uttar Pradesh is 6.7% in male and 4.5% in female and in Delhi 8% in male and 4.6 % in female.

Gupta ,G.,(2005)

Prevalence in rural north India is6.2% is men and 3.9% in female, in urban north India prevalence is 4.2% in male and 1.6% in female. Prevalence rate in south India is 4.08% men 2.55% in female.

Sharma, P., (2004)

In India, COPD due to the exposure to cotton due is 26.4%, mine workers were 28% and 73% of workers suffer from chronic bronchitis and emphysema among the factory workers.

Agarwal, S.,(2005)

WHO reveals statistics that there were 2.50 million smokers in India and 30 million people of them were affected by COPD. Average increases in emergency room visits by 24.9%

WHO, (2005)

In South India, the prevalence estimated 30.23% in kerala, of all patients, the percentage of male is 85.2% and 13.7% in female, in Andhra Pradesh prevalence of COPD is 5.5%.

Salim,S et.al.,(2001)

In Tamil Nadu, Prevalence of COPD is 4.1% in male and 2.5% in female. The prevalence rate is as much as 2.5% .age specific prevalence among 30-50 years is 1.8% and over 50 years is 3.6%. Prevalence rate was higher in male than female. COPD prevalence was higher among passive smokers. In North Chennai, in the economic evaluation of health damage it was estimated that prevalence is 0.68% and annual total cost on COPD 1018 lakes per annum.

Kalpana,B et.al.,(2001).

According to 2004 update of WHO, world health report COPD was the 5th most common cause of death in 2002. It imposes huge socio-economic burden on individual and society. WHO estimates that COPD will be the third leading cause of death world wide by 2030.

World COPD day is observed every year on Nov.19th with the theme of this year being breathless not helpless. World conference of COPD patients conducted on June 14, 2009 in Rome, formulated global mandate for COPD care and COPD patients bill of rights.

The voluntary agencies like the American lung association, the COPD foundation ,The national emphysema and COPD, global initiative for chronic obstructive lung disease ,American association for respiratory care, Centre for disease control and prevention, Indian lung association, Canadian lung association, British lung association, and European lung association and national institute of health the most important is WHO working towards world wide surveillance and co-ordinate global strategy for promotive and preventive activities and support the nations and other voluntary agencies in rendering, management services.

Jindal., (2006) describes COPD awareness in Asian is very less and in Indians is 11%, Pakistanis 15% and Bangladesh is 12%. The knowledge about COPD and its effective management is essential for improving the quality of life of a person.

According to a report from Hindu (2009) The Government of TamilNadu through "Varumun Kappom" scheme had conduct medical camps periodically and diagnose new cases earlier and treats the diagnosed COPD patients promptly to prevent complications.

In all PHC's of Tamil Nadu, COPD patients are periodically examined and reviewed monthly in the government hospitals and primary health centres. They are issued on free medications monthly. In- patient services are provided at upgraded PHC and provision of nebulization and immediate management of acute exacerbations with oxygen therapy and medications is done. Even though there is a remarkable improvement in the treatment modalities for COPD, due to lack of awareness and poor access to care, the risk of COPD among people is increasing. Irregular treatment leads to early development of complications.

The goal of management of COPD is to increase the autonomy of the patient with chronic respiratory disease through enhanced physical social and psychological function. A comprehensive approach is now considered essential to life long management i.e. self care management of COPD which will undoubtedly decrease the considerable burden of COPD.

Effective self management skills to make better use of health care personnel's time and have enhanced self care. Self care management refers to patients achieving the skills and confidence to manage their health and engage in modified behavior in pharmacological management adherence to medications, follow-up and early recognition

of symptoms and prompt treatment non-pharmacological management breathing technique, exercise, nutrition nebulization therapy and stress management etc. which implies a structural behavioral changes.

Tanja ,E.,(2007)

Coultas et.al.,(2005) speculated the integral components of pulmonary rehabilitation improves self management of COPD.151 patients divided into usual care and nurse assisted group end educated through educational booklet and concluded that the nurse assisted group exhibited improvement in health related quality of life .

Jonsdottir ,H., (2007) states that nursing care and role is unique in chronic phase of COPD is imparting knowledge on self care management of COPD and motivating towards right practice. The nurses need to be well equipped with the knowledge focused towards the health and quality of life of the patients. Nurses play a key role in modifying of the patients towards effective self care. Nurse plays an important part in the self care management and awareness programme. She can be an educator, manager, counselor and professional role model. Education of patient is key to the success, and skilled nurses are the only provider of health education. Media plays an active role in creating awareness among people. Most of the patients are ignorant and it is necessary to educate and motivate them to attain self care

effectively. So the investigator felt the need to educate the patients with COPD using a VCD on self care management.

The investigator on her clinical experience has seen patients diagnosed with COPD and hospitalized frequently with acute exacerbations and observed very little awareness and knowledge on the self care aspect of COPD like breathing exercises, nutrition, aerosol nebulization therapy, medication, follow up and complications in patients. They were less motivated towards the adequate self care aspects to prevent complication. The investigator is interested in improving the quality of the COPD patients by a comprehensive approach using video assisted teaching through this study.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of video assisted teaching programme on regarding self care management in terms of knowledge and practice among patients with COPD admitted at Perundurai Medical College Hospital, Erode district.

OBJECTIVES

1. To assess the pretest knowledge and practice scores regarding self care management among patients with COPD.
2. To assess the post test knowledge and practice scores regarding self care management among patients with COPD.
3. To compare pretest and post test knowledge scores regarding self care management among patients with COPD.
4. To compare pretest and post test practice scores regarding self care management among patients with COPD
5. To correlate the post test knowledge scores and post test practice scores regarding self care management among patients with COPD.
6. To find out the association between post test knowledge score regarding self care management among patients with COPD with their selected demographic variables.
7. To find out the association between post test practice score regarding self care management among patients with COPD with their selected demographic variables

OPERATIONAL DEFINITION

Effectiveness:-

Producing an intended result. In this study it refers to determine the extent to which video assisted teaching programme has brought about the significant difference between pre and post test knowledge and practice score which is measured in terms of statistical measurement.

Video assisted Teaching programme :-

It is a planned, orderly framed content or information to educate an individual or group purposefully by using recorded moving images with audio output.

In this study it refers to systematically developed instruction and teaching designed to provide information for group of patients with COPD regarding self care management of COPD on breathing technique, coughing technique, aerosol nebulization therapy, dietary management, rest and sleep, medications, complications due to poor self - care management, preventive measures and follow - up for 40 minutes through television by recorded moving images with audio output to create awareness on self care management and produce marked changes in their practice .

Knowledge :-

Knowledge is information or level of understanding gained through experience or education.

In this study it refers to the verbal response of the patient and their level of understanding of the COPD patient about self care management among patients with COPD which is measured through structured interview schedule with knowledge questionnaire and its scores.

Practice :-

Performance or skills gained through experience or education.

In this study it refers to knowledge on practice in terms of verbal response of patient with COPD regarding self care management which is measured by structured interview schedule using rating scale and its scores.

Patients with Chronic obstructive pulmonary disease

COPD is a preventable and treatable disease characterized by airway limitation that is not fully reversible. It encompasses two types of obstructive airway diseases - chronic bronchitis and emphysema.

Lewis et al., 2007)

In this study it refers to the person diagnosed as chronic obstructive pulmonary disease between the age group of 20-60yrs, admitted in the ward for minimum of 7 days and undergoing treatment in the hospital.

Self care Management :-

Broad spectrum of health care and services provided in the home environment by self or to recovering or disabled or chronically ill patients in aspects of health maintenance , treatment, palliation and rehabilitation.

National association for home health care (2007)

In the study it refers to the aspects of health maintenance for patients with COPD like breathing technique, coughing technique, aerosol nebulization therapy, dietary management, rest and sleep, medications, complications due to poor self - care management, preventive measures and follow –up which is imparted and motivated to adopt in practice.

HYPOTHESES

H_1 - The mean post test knowledge score is significantly higher than the mean pretest knowledge score on self care management among patients with COPD.

H_2 - The mean post test practice score is significantly higher than the mean Pretest practice score on self care management among patients with COPD.

H_3 - There will be significant correlation between post test Knowledge score and post test practice score on self care management among patients with COPD.

H_4 - There will be significant association between post test knowledge score among patients with COPD with their selected demographic variables.

H_5 - There will be significant association between post test practice score on self care management among patients with COPD with their selected demographic variables.

ASSUMPTION:

- Patients may have some knowledge on self care management of COPD.
- Knowledge influences the practice regarding self care management.
- Video assisted teaching programme may enhance the knowledge and practice regarding self care management.
- Nurses have an important role in educating the patient on self care management of COPD.

DELIMITATION:

The study is delimited to

- The data collection period is limited to 5 weeks.
- Patients who are admitted in the wards and remain for 7 days.
- Sample size for the study is limited to 50.

PROJECTED OUTCOME

The video assisted teaching programme regarding self care management will improve the knowledge and practice of patients with COPD which may enable them to reduce the risk of developing complications and improve their quality of life.

(ii)CONCEPTUAL FRAME WORK

INTRODUCTION

Conceptual frame work helps to express abstract ideas in a more readily understandable on precise form than the original conceptualization. The conceptual framework for this study was direction from "wiedenbach's helping art of clinical nursing theory (1969)" given by Ernestine Wiedenbachs.

According to Ernestine wiedenbach (1969) nursing is nurturing and caring for someone in a motherly fashion. Nursing is a helping service that is rendered with compassion, skill and understanding to those in need for care, counsel and confidence in the area of health. The practice of nursing comprises a wide variety of services each directed toward the attainment of one of its three components.

Step I : Identification of the need for help.

Step II : Ministration of help needed .

Step III : Validation that need for help was met.

CENTRAL PURPOSE

According to theorist, the nurse's central purpose defines the quality of health she desires to affect or sustain in her patient and

specifies what she recognizes to be her special responsibility in caring for the patient.

In the present study the overall goal is to provide the patient adequate knowledge and practice regarding self care management

STEP I: IDENTIFICATION OF THE NEED FOR HELP.

According to the theorist within the identification component there are four distinct steps. First the nurse observes the patient, looking for an inconsistency between the expected behavior of the patient and the apparent behavior. Second she attempts to clarify what the inconsistency means. Third she determines the cause of the inconsistency. Finally she validates with the patient that her help is needed. Widen Bach's believed that every individual need as a normal part of living in comfortably or capably on situation. Identification involves individualization of the patient, his experience and recognition of the patient's perception.

In present study the general information which comprises. In this study age, sex, marital status, religion, educational status, occupation, monthly income, type of family, residential area, religion and duration of illness were collected. In the study patients with COPD are identified

based on the inclusion criteria, purposive sampling technique was used to select the patients and pretest was conducted.

STEP II : MINISTRATION OF HELP NEEDED .

According to the theorist in ministering to the patient the nurse may give advice or information, make a referral, apply a comfort measures or carry out a therapeutic procedures. The nurse will need to identify the cause and if necessary make an adjustment in the plan of action.

Ministering the need for help has two components.

- **Prescription**
- **Realities**
- **Prescription**

According to the theorist, prescription is directive to activity. It specifies both the nature of the action that will most likely lead to fulfillment of the nurse's central purpose and the thinking process that determines it.

In the present study prescription is plan of care to achieve the purpose which includes developing, validating n of the video assisted teaching programme regarding self care management of COPD on breath retraining techniques, pursed lip breathing and diaphragmatic

breathing, coughing techniques, Aerosol nebulization theory, dietary management, rest and sleep, medications complication preventive measures and follow –Up for 40 minutes using TV.

❖ **Realities**

According to the theorist the realities of the situation in which the nurse is to provide nursing care. Realities consist of all factors - physical, physiological, emotional and spiritual that are at play in a situation in which nursing actions occur at any given moment. Wiedenbach's defines the five realities as the agent, the recipient, the goal, the means and the framework.

i. Agent

According to the theorist, the agent is the practicing nurse or her delegate is characterized by personal attribute capacities, capabilities and most importantly commitment and competence in nursing. In this study the investigator is the agent.

ii. Recipient

According to the theorist the recipient is the patient, is characterized by the personal attributes, problem, capabilities, aspirations and most important ability to cope with the concerns or problems being experienced.

In this study the patients with the diagnosis of COPD are the recipients.

iii. Goal

According to the theorist the goal is the desired outcome the nurse wishes to achieve. The goal is the end result to be attained by nursing action.

In this study it is to improve knowledge and practice of self care management among patients with COPD through video assisted teaching programme.

iv. **Means**

According to the theorist the means comprise the activities and devices through which the practitioner is enabled to attain her goal. The means include skills, Techniques, procedures and devices that may be used to facilitate nursing practice.

In this study it is the administration of video assisted teaching programme regarding self care management for patients with COPD for 40 minutes using TV to attain the goal.

v. Frame work

According to the theorist the framework consists of the human environmental, professional and organizational facilities that not only make up the context within which nursing is practiced but also constitute is currently existing limits.

In this study it refers to the ward set up in IRT- Perundurai Medical College Hospital

STEP III : VALIDATION THAT NEED FOR HELP WAS MET.

According to the theorist the third component is validation. After help has been ministered, the nurse validates that the actions were indeed helpful. Evidence must come from the patient that the purpose of the nursing actions has been fulfilled.

In this study, it is the evaluation of post assessment of knowledge and practice after video assisted teaching programme using statistical measurement.

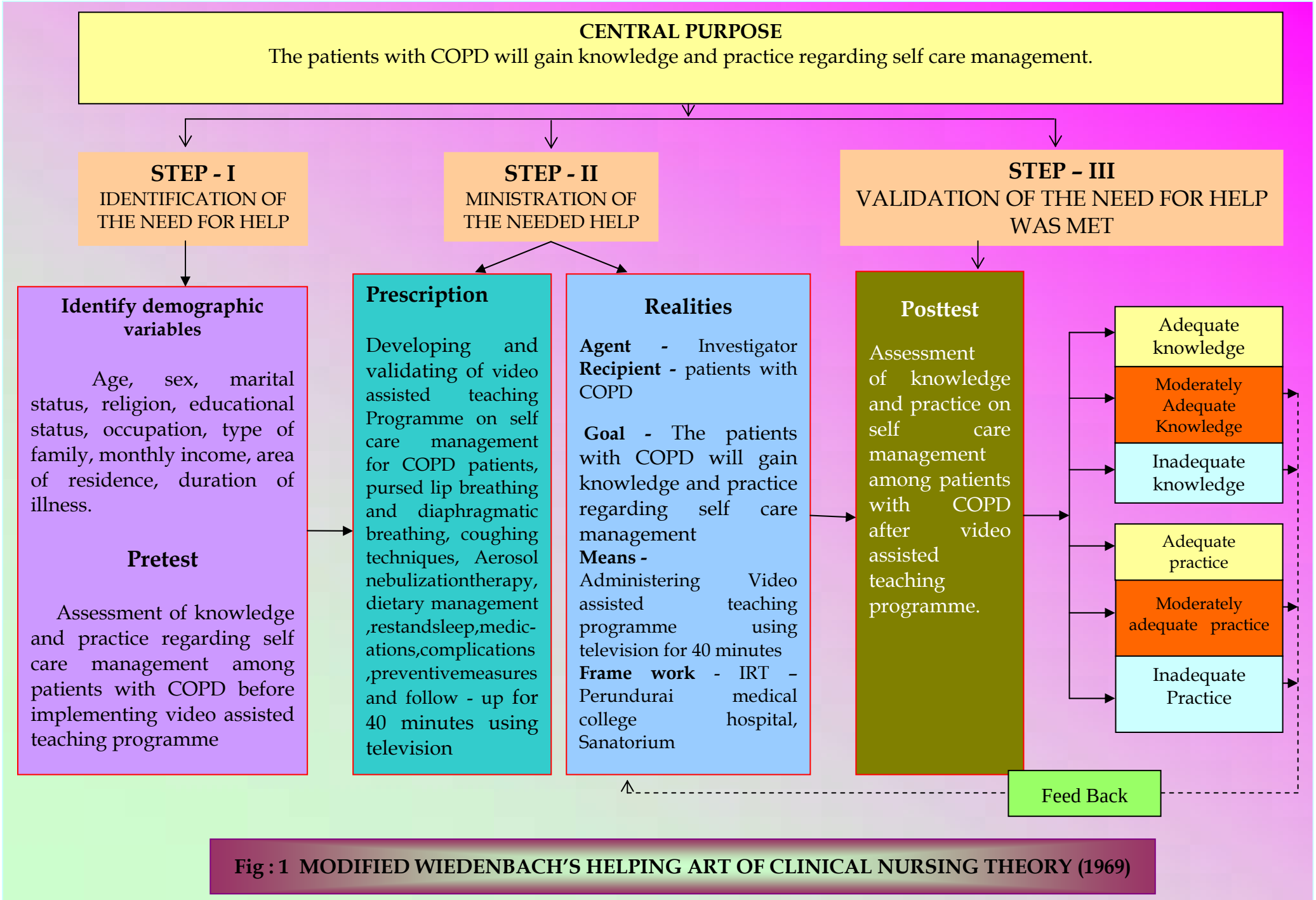

Fig : 1 MODIFIED WIEDENBACH'S HELPING ART OF CLINICAL NURSING THEORY (1969)

CHAPTER – II

REVIEW OF LITERATURE

Literature refers to those sources that are important in providing the in depth knowledge needed to make changes in practice or to study a selected problem. A literature review is a summary of the state of existing knowledge on a research problem. The task of reviewing research involves identification, selection, critical analysis and written description of existing information on a topic.

(Polit .F.D., 2004)

It consists of part I, II, III.

Part I :

- Over view of COPD.

Part II :

A) Studies related to incidence and prevalence of COPD.

B) Studies related to risk factors of COPD.

C) Studies related to signs and symptoms of COPD.

D) Studies related to complications of COPD.

E) Studies related to impact of COPD on patients.

F) Studies related to management of COPD.

G) Studies related to self care management of COPD.

H) Studies related to importance of education.

I) Nurses role in patient education.

Part III

- Effectiveness of video assisted teaching programme.

PART-I: OVERVIEW OF COPD

Chronic obstructive pulmonary disease (COPD) is a preventable and treatable disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually progressive and associated with an abnormal inflammatory response of the lungs.

Lewis et.al., (2007)

ETIOLOGY:

Cigarette smoking:

Major risk factors for developing COPD in cigarette smoking. It causes changes in small airway function and later causes mucosal edema and thickening of the airways and destruction of collagen fibres.

Occupational chemicals and dusts:

Prolonged exposure to various dusts and vapors, irritants or fumes in workplace exposures to these irritants causes the airway to be hyper responsiveness.

Air Pollution:

High levels of urban air pollution are harmful to persons at risk. Use of fossil fuels that are used in indoor heating and cooking and poor ventilation are important factors leading to development of COPD.

Infection:

Infection is a risk factor for developing COPD severe recurring respiratory tract infections impairing normal defense mechanisms.

Hereditary:

Antitrypsin deficiency is the genetic risk factor that leads to COPD. AAT deficiency leads to premature bullous emphysema in the lungs.

Aging :

Aging results in changes in the lung structure, the thoracic cage and gradual loss of the elastic recoil of the lung. Changes in the elasticity of the lungs reduced the ventilatory reserve and ability to clear secretions decreases with age.

Black ,M.Joyce , (2005)

CLINICAL MANIFESTATION:-

- Intermittent cough,
- Expectoration of small amount of sticky mucus
- Dyspnea on excretion and at rest in later stages
- Use of intercostal and accessory muscles
- Wheezing Prolonged expiratory wheeze
- Chest tightness and fatigue

Williams,S.Linda,(2001)

COMPLICATION:

- Corpulmonale
- Acute respiratory failure
- Peptic ulcer and GERD
- Anxiety and depression
- Malnutrition.

Wilma ,J.,(1996)

COLLABORATIVE CARE:

Drug therapy to reduce symptoms, improve over all health and reduce the number and severity of exacerbations.

Bronchodilators and B-adrenergic agonist:

Stimulates B- adrenergic receptors, producing bronchodilation, increases mucociliary clearance. The drugs are metaprotenol, albuterol, levobuterol, terbuline.

Anti inflammatory agents: Decreases edema in bronchial airways. Act synenergistically with B2 agonists. Decreases mucus secretion E.g. : hydrocortcosone , prednisolone , methyl Prednisolone.

Antichlolinergics:

Blocks action of acetylcholine resulting in bronchodilation E.g. Ipratropium.

Methyl xanthine derivatives:

Relaxation of bronchial smooth muscles and improved contractility of fatigued diaphragm E.g. Amimophylline.

Oxygen Therapy

Chest Physiotherapy

Pulmonary rehabilitation programme.

Davidson,(1999)

COMPONENTS OF SELF CARE MANAGEMENT:-

- **Breathing exercises :-**

It is a technique of guided breathing exercise and training used to enhance breathing and improve the health. It helps to keep the airways stay open longer as you breathe in and as you breathe out. It helps in decreasing breathing difficulty, slowing the respiratory rate and improving oxygenation.

- **Pursed lip breathing :**

It is one of the simplest way to control shortness of breath and slows the pace of breathing and makes each breath effective Breathe in (inhale) slowly and deeply through nose and keep mouth closed. Exhale slowly through mouth with lips "pursed" (lips in a whistling position)

- **Diaphragmatic breathing**:

Diaphragmatic breathing exercise focuses on diaphragm. It helps to expand the lungs. Diaphragm, the principle muscle of respiration is using instead of the accessory muscles of the chest

- **Coughing exercises:**

  To increase the efficiency in the clearance of bronchial secretions, without causing or increasing bronchospasm and mobilize secretions from the more peripheral airways towards the proximal airways

- **Aerosol nebulization therapy:**

  Medications for COPD patients are most often delivered through metered dose inhaler and devices that deliver a suspension of liquid in a gas called nebulizer.

- **Dietary management:**

  Balanced diet helps to rebuild muscles and recover from illness. Consume high calorie foods like rice, wheat, raggi, maize, etc. High protein foods like pulses, legumes, milk, meat, egg, etc. Vegetables like dark green vegetables and leafy vegetables and purple, red varieties like beets, radishes, pineapple and papaya should be consumed.

- **Rest and sleep**:

  Keep a regular sleep schedule, going to bed and waking around the same time each day.Patient should take rest for at least 30 minutes before eating. Take rest after exercise. Sleeping up to 8 hours per day.

- **Medications:**

  To reduce or abolish symptoms. To increase the capacity to do exercise .To reduce the number and severity of exacerbations

Complications due to poor self care management

Preventive measures

- **Smoking cessation:**

  Instruct client to accept that smoking is harmful for health. Make determination to quit smoking.

- **Control of environmental factors: -**

  Avoidance of smoking in closed environment especially inside the house. Regular cleaning (dusting and mopping) of the house. Allowing regular exposure of furniture to the sunlight.

- **Follow up**:

  Visit the physician on proper follow up dates to prevent further complication. Report the physician of any discomfort to symptoms like change in sputum colour, amount, consistency, more frequent or productive cough, elevated temperature or dyspnea .

Lewis et .al.,(2007)

PART-II

A) **STUDIES RELATED TO INCIDENCE AND PREVALENCE OF COPD**

Hansen, J.G et.al., (2008) estimated the prevalence of COPD through population-based study in the Danish population aged 45-84 years. stratified sampling was used to select 4,757 subjects. It was found an overall COPD Prevalence of 12% Standardized to the Danish population, the true prevalence of COPD is 9% .The highest prevalence was observed among current smokers (23%) and former smokers (17%) as well as in the older age group (total-18%; men = 21%; women = 15%). Most subjects with COPD had mild-to-moderate disease. It was concluded that the population prevalence of COPD is high among smokers.

Menezes, A.M et.al., (2009)conducted a multicenter study to reveal the prevalence of chronic obstructive pulmonary disease (COPD) in Latin America comprising five cross-sectional population-based surveys of approximately 1,000 individuals per site in Sao Paulo, Santiago, Mexico City , Montevideo and Caracas. A retrospective cohort analysis was carried out. The prevalence of smoking ranged from 23.9% in Sao Paulo to 38.5% in Santiago. Using retrospective cohort analysis, it

was possible to detect that the highest prevalence of smoking is found between 20-29 years.

Miravitlles, M et.al.,(2009) conducted a population-based study to determine the prevalence of chronic obstructive Pulmonary disease (COPD) in Spain and 4274 adults aged 40-80 years was surveyed. For 3802 participants with good-quality post bronchodilator spirometry, the overall prevalence of COPD was 10.2% and was higher in men (15.1%) than in women (5.6%). The prevalence of COPD stage II or higher was 4.4%. The prevalence of COPD increased with age and with cigarette smoking and was higher in those with a low educational level. A previous diagnosis of COPD was reported by only 27% of those with COPD.The prevalence of COPD in individuals between 40 and 80 years of age in Spain is 10.2% and increases with age, tobacco consumption and lower educational levels.

Bang, K.M and Mazurek, J.M. (2009) estimated the prevalence and the population of chronic obstructive pulmonary disease (COPD) in the U.S. adult workers. The overall COPD prevalence was 4.0%.The prevalence was higher in females (5.4%,)than in males (2.8%); in Whites (4.2%) than in Blacks (3.4%, 95%)and other races (2.4%). Compared with insurance, real estate and other finance industry, the top three

industries associated with Significantly higher prevalence were other educational services (1.5);transportation equipment (1.4); and social services, religious and membership organizations (1.4). The overall population attributable fraction for association of COPD with employment was 12.2% for industry and 17.4% for occupation.

Jindal.(2006) states that Chronic obstructive pulmonary disease is now recognized in 4-10 per cent of adult male population of India and several other Asian countries. The Regional COPD Working Group for 12 Asia Pacific Countries and Regions used a COPD prevalence model and estimated an overall prevalence rate of 6.3 per cent with a range from 3.5 to 6.7 per cent. The smoking associations with COPD were high from most countries i.e., 2.65 in India, 2.57 in China and 2.12 in Japan. In a large, multicentric study from India, the population prevalence of COPD was 4.1 per cent of 35295 subjects with a male to female ratio of 1.56:1. Almost all forms of smoking products such as cigarettes and 'bidis' used in different States were found to be significantly associated with COPD

Jindal,S.K et.al.,.(2001)estimated the gross burden of chronic obstructive pulmonary disease (COPD) and its smoking association by reviewing the population studies available from India. Of the 14 studies

which were reviewed, there were 11 conducted in general populations. The median values of different prevalence rates (i.e. 5 percent in male and 2.7 percent in female population). The overall M: F ratio was 1.6:1, i.e. 61.6 percent males. The estimated total number of adult patients aged 30 years and above in 1996 was 8.15 million males and4.21millionfemales. The smoker: on-smoker ratio in males was assessed at 82.3 percent with an estimated burden of 6.7 millions.

Ray ,D and Selvaraj, K.G.2000)In a prospective epidemiological study from 1981 to 1986 in four villages belonging to the KV Kuppam block of North Arcot Ambedkar district in Tamil Nadu, it was detected 328 patients of chronic obstructive pulmonary disease (COPD) amongst the 9946 inhabitants who were aged 30 yr or more. Majority of the population was from the lower income group and they were agricultural workers residing in these villages which were generally free from atmospheric pollution. Of the 328 patients with COPD, 198 were males and 130 were females showing an overall age specific prevalence of 33.0/1,000 with a prevalence of 40.8/1,000 for males and 25.5/1,000 for females, respectively Most of those tested showed evidence of airways obstruction; severe defect was observed in 106 patients. Among the males, 122 gave a history of smoking; majority of the heavy smokers amongst them had severe impairment.

B)STUDIES RELATED TO RISK FACTORS OF COPD

Blanc, P.D et.al., (2009) conducted a study to examine occupational risk for Chronic Obstructive Pulmonary Disease. It consists of randomly recruited 233 subjects aged 55 to 75 reporting a physician's diagnosis of COPD, Interviews assessed cigarette smoking and longest held job, identifying exposure to vapors; gas, dust, or fumes Lung function was assessed. Lung function was declined in 123 (53%) of 233 cases associated with COPD, the population attributable fraction was 32%. In the lung function subset, the lung function was <70% in 79 (57%); 35 (44%). These data support an important role for occupational exposures in COPD.

Menezes, A.M et.al.,(2008) conducted a study at California, to assess the occupational contribution to chronic obstructive pulmonary disease (COPD) .An ecological approach was used, analyzing group-level data from 90 sex-specific strata. The prevalence of exposures predicted COPD prevalence (0.8% increase in COPD prevalence per 10% increase in exposure prevalence). By comparison, for every 10% increase in the proportion of the ever-smoking population, the prevalence of COPD increased by 1.3%. Observed median population COPD prevalence of 3.4%, the model predicted that a 20% relative reduction in the disease burden (i.e. to a COPD prevalence of 2.7%)

could be achieved by a 5.4% reduction in overall smoking rates or an 8.8% reduction in the prevalence of occupational exposures. The sex-specific data, among males, the occupational effect was a 0.8% COPD prevalence increase per 10% change in exposure prevalence; among females, a 1.0% increase in COPD per 10% change in exposure prevalence was observed.

Blanc,P.D and Iribarren ,C.(2008) conducted study on occupational exposures and the risk of COPD with 1202 subjects with and Occupational exposures were assessed using self-reported exposure to vapors, gas, dust or fumes on the longest held job (VGDF) and a job exposure matrix (JEM) for probability of exposure based on occupation. Multivariate analysis was used to control for age, sex, race and smoking history. VGDF exposure was associated with an increased risk of COPD. The risk associated with high probability of workplace exposure by JEM was similar. Joint exposure to both smoking and occupational factors markedly increased the risk of COPD. Workplace exposures are strongly associated with an increased risk of COPD.

Esther Rodríguez et.al.,(2008) Conducted a cross-sectional study to establish the relationship between occupational exposures and COPD and impact of occupational exposures on respiratory symptoms, lung function, and employment status in a series of 185 male COPD patients. Exposure to biological dust, mineral dust, and gases and fumes was assessed using an *ad hoc* job exposure matrix. Having worked in a job with high exposure to mineral dust or to any dusts, gas, or fumes was associated with an FEV_1 of < 30% predicted (mineral dust: relative risk ratio, 11;), 1.4; dusts, gas, or fumes: relative risk ratio, 6.9. High exposures to biological dust and mineral dusts, gas, or fumes were associated with sputum production and dyspnea. Occupational exposures are associated with the severity of airflow limitation, respiratory symptoms, and work inactivity in patients with COPD.

Sur, Dand Mukhopadhyay, S.P.(2007)conducted a study to assess the impact on health from smoking with economic implications with passive smoking as additional burden to smokers' families in a slum area of Howrah Municipal Corporation on approximately 3000 families, which were randomly selected. There was a statistically significant difference in disease pattern between smokers' family and non-smokers' family especially with relation to chronic obstructive pulmonary disease. Cost analysis of the illness episodes in the smokers'

and non-smokers' families showed that there was a 3-fold difference in average annual expenditure. 8-fold difference in work days lost,4-fold difference in annual expenditure on these diseases. The total expenditure was a 12-fold increase in annual expenditure between smokers' and non-smokers' families. The study conclusively proves that there are ill effects on health both from active and passive smoking.

C) STUDIES RELATED TO SIGNS AND SYMPTOMS OF COPD:

Gothi D.et.al.,(2007) conducted study the clinical profile of diseases causing chronic airflow limitation(CAL) . Severity of CAL was graded using forced expiratory volume in one second (FEV1) % predicted. Two hundred sixty eight consecutive patients of CAL, age range 12-75 years, 172 men and 96 women were included in the study. Sixty three percent had asthma, 17% had chronic obstructive pulmonary disease (COPD), 6% had bronchiectasis, 13% had obliterative bronchiolitis (OB) and 1% had occupational airway disease. 98% of COPD was caused by tobacco smoking, of which 84% were bidi smokers. 37% of COPD, 33% of bronchiectasis, 53% of OB and 22% of asthma had severe airflow limitation. Although, asthma was the leading cause of CAL, it caused functional impairment. CAL due to COPD was common.

Burgel, P.R et.al.,(2005) conducted epidemiologic studies indicate that chronic cough and sputum production are associated with increased mortality and disease progression in COPD subjects. Cross-sectional analysis of data was obtained from cohort of COPD patients. Subjects with (n = 321) and without (n = 112) chronic cough and sputum production were compared. Subjects with chronic cough and sputum production had increased total mean numbers of exacerbations per patient per year (2.20 +/- 2.20 vs. 0.97 +/- 1.19, respectively, moderate exacerbations (1.80 +/- 2.07 vs. 0.66 +/- 0.85, respectively), and severe exacerbations requiring hospitalizations (0.43 +/- 0.95 vs. 0.22 +/- 0.56, respectively). The total number of exacerbations per patient per year was the only variable independently associated with chronic cough and sputum production. Frequent exacerbations (two or more per patient per year) occurred in 55% vs 22% of subjects, respectively, with and without chronic cough and sputum production. The study concluded that occurance of exacerbations occurred without chronic cough and sputum production

D) STUDIES RELATED TO COMPLICATIONS OF COPD:-

Bahadori,K. (2009) conducted a study to identify the risk factors associated with hospital readmission(s) for acute exacerbation(s) of COPD. Identified 310 consecutive patients admitted for an AECOPD between 2001 and 2002. Logistic regression analysis was performed to identify risk factors for readmissions following acute exacerbations. During the study period, 38% of subjects were readmitted at least once. The mean duration from the index admission to the first readmission was 5+/-4.08 months. Comparative analysis among the three hospitals identified a significant difference in readmission rates (54%, 36% and 18%, respectively).

Detournay,et.al.,(2008) Conducted a study to estimate the total direct medical costs of patients with treated chronic obstructive pulmonary disease (COPD) in France according to severity stages. This survey was completed for 255 patients and average total medical resources consumption of a COPD patient per year was 4366 euros. Among this cost 41% was directly related to COPD follow-up, 25% to COPD-related complications (mainly exacerbations), and 34% to other diseases, more than one-third of the total direct COPD cost was related to hospitalizations and 31% to drug consumption. The total medical consumption of COPD patients in France was 3.5 billion euros and

accounted for 3.5% of the total medical expenditures (prevalence of COPD was 1.3%). The study revealed the high level of medical resources consumption of patients with COPD.

Ambrosino,N and Goldstein,R.(2007) reports that Chronic obstructive pulmonary disease affects 6% of the general population and is a leading cause of morbidity and mortality worldwide. Severe and very severe disease, show a prevalence of 4.5 and 2.2% in males end-stage COPD patients have the most severe airflow limitation, the highest levels of dyspnoea and the worst health-related quality of life. Their condition has great impact on their ability to engage in activities and on their participation in social, professional and leisure activities. Their exercise tolerance is markedly reduced by dyspnea and fatigue, and they have frequent respiratory exacerbations, which often result in hospitalization. These patients most likely to experience the worst secondary impairments of COPD, including peripheral muscle, nutritional and psychological dysfunction.

Cooper,C.B et.al.,(2008), Patients presenting with chronic obstructive airways disease and hypoxic cor pulmonale were assessed during a period of clinical stability. Seventy two patients (53 male) with a mean age of 60 years were selected for long term oxygen therapy. Mean FEV1 was 0.78 l and forced vital capacity 1.9 l. The mean arterial

oxygen tension (PaO2) was (46 mm Hg) and the mean arterial carbon dioxide tension (PCO2) (52 mm Hg). All patients had a PaO2 of less than (60 mm Hg) and 57 patients had a PCO2 of more than (45 mm Hg). Pulmonary haemodynamics were measured in 45 patients yielding the following mean values. Overall five year survival was 62%, but the 10 year survival was only 26% owing to an observed acceleration in death rate. This review summarizes that in patients with COPD, the prevalence of cardiac failure is manifested in 10%–46% of the patients, and that up to 40% of patients with cardiac failure show evidence of COPD, about half of them not earlier diagnosed.

E) STUDIES RELATED TO IMPACT OF COPD ON PATIENTS

Light, R.W. (2005)conducted a study to document the prevalence of depression and anxiety in patients with moderate or severe chronic obstructive pulmonary disease; and to determine whether the presence of depression or anxiety adversely affected the functionaL capabilities of the patient as reflected by the distance he could walk in 12 minutes for Forty-five patients. The degree of depression was assessed by the Beck depression inventory, while the degree of anxiety was assessed by the State-Trait anxiety inventory. Forty-two percent of the patients had significant depression, while only 2 percent of the patients had significant anxiety. There was a highly significant correlation between

the depression scores and the anxiety scores (r = 0.81), p less than 0.001. Study concludes that the prevalence of depression in patients with moderate or severe COPD approaches 50 percent while the incidence of anxiety is much lower (2 percent).

Zeneca, A.(2008) conducted a interview-based patient study and highlighted on COPD patients' comprehension, recognition, and experience of exacerbations and the burden associated with these events. Exacerbations cause substantial anxiety, patients reported; 12% stated they worry about dying, 10% that they worry about suffocating, 10% that they will experience a permanent worsening of their condition and 8% that they will be hospitalised. A majority of patients reported that besides influencing on their activities in daily live, a worsening significantly affect their mood causing a variety of negative feelings, such as depression, irritability/bad temper, anxiety, isolation, anger, and guilt. Moreover 42% stated that exacerbations affected their personal relationships.

Aughney et.al.,(2005)conducted an international cross-sectional study, patients' concerns and expectations regarding COPD exacerbations were explored using discrete choice modelling. A fractional factorial design was used to develop scenarios comprising a combination of levels for nine different attributes. In face-to-face

interviews, patients were presented with paired scenarios and asked to choose the least preferable. A total of 125 patients (82 males; mean age 66 yrs; 4.6 mean exacerbations) The attributes of exacerbations considered most important were impact on everyday life (20%), need for medical care (16%), number of future attacks (12%) and breathlessness (11%). The next most important attributes were speed of recovery, productive cough and social impact (all 9%), followed by sleep disturbance and impact on mood (both 7%).

F) STUDIES RELATED TO MANAGEMENT OF COPD :

Vestbo,J et.al.,(2009) estimated on drug adherence from a randomized double-blind trial comparing inhaled salmeterol 50 micro gm + fluticasone propionate 500 micro gm twice daily with placebo and each drug individually in 6112 patients with moderate to severe COPD over 3 years. Of the 4880 patients (79.8%) with good adherence defined as >80% use of study medication, 11.3% died compared with 26.4% of the 1232 patients (20.2%) with poor adherence. The annual rates of hospital admission for exacerbations were 0.15 and 0.27, respectively. The effect of treatment was more pronounced in patients with good adherence than in those with poor adherence.

Judith and Garcia,A t.al.,(2008) explains an integrated care intervention including education, coordination among levels of care, and improved accessibility, reduced hospital readmissions in chronic obstructive pulmonary disease (COPD) after 1 year. Intervention in terms of clinical and functional status, quality of life, lifestyle, and self-management were planned. A total of 113 exacerbated COPD patients (14% female, mean age 73(8) years) were recruited after hospital discharge in Barcelona, Spain, and randomly assigned (1:2) to integrated care (*n*=44) or usual care (*n*=69).After 1 year of intervention, subjects in the intervention group improved body mass index by 1.34 kg/m^2. Additionally, they scored better in self-management items: It concluded that COPD knowledge 81% vs. 44%, exacerbation identification 85% vs. 22%, exacerbation early treatment 90% vs. 66%, inhaler adherence 71 vs. 37%, and inhaler correctness 86 vs. 24% shows a remarkable increase and reduced hospital admissions.

Daniel.J.DeNoon. (2009) conducted a study to prevent exacerbations the study enrolled nearly 6,000 COPD patients in 487 centers in 37 nations. tested the inhaled, long-acting bronchodilator Spiriva.Last year, study investigators reported that Spiriva can safely help patients with severe COPD breathe more easily.Analysis of the subset of 2,739 patients with moderate COPD shows that Spiriva could

actually slow COPD progression. Treatment also reduced COPD exacerbations and improved quality of life .

G) STUDIES RELATED TO SELF CARE MANAGEMENT OF COPD:

Hill,K et.al.,(2009) conducted a randomized control study to examine the effect of brief disease-specific education delivered in primary care on objective measures of knowledge in individuals recently diagnosed with chronic obstructive pulmonary disease. The Bristol COPD Knowledge Questionnaire was self-administered at the time of randomization and approximately three months later. Of the 93 individuals that completed the study, 50 participants were randomized to the experimental and control groups, respectively. The BCKQ increased from 27.6+/-8.7 to 36.5+/-7.7 points in the experimental group, which was greater than any seen in the control group(between-group difference 8.3, 95% confidence interval 5.5-11.2 points).An education delivered in primary care was effective at increasing objective measures of disease-specific knowledge.

Sedeno, M.F et.al., (2009) assessed treatment initiation and health care use at exacerbation in patients receiving a self-management education program. COPD patients were randomly assigned to usual care or to a comprehensive self-management program "Living Well with COPD" including a written action plan and case manager support, and were followed-up for 12 months. At 12 months, 166 patients presented with at least one exacerbation. Exacerbations (606) were confirmed by aggravation of at least one symptom; 403 (67.6%) presented 2 or more. Antibiotics were used in 61.6% of exacerbations and prednisone in 47.9%. . In the action plan, exacerbations resulted in a hospitalization compared to the usual care group, 17.2% vs. 36.3% .Self-management with the successful use of an action plan for acute exacerbation of COPD holds promise for reducing health care use.

Carré ,P.C et.al.,(2008) Conducted a study to evaluate the impact of an information leaflet on the level of knowledge of COPD in subjects with or at risk of COPD.A total of 860 subjects with or at risk of COPD were selected by using a phone questionnaire. Randomized into 2 groups with only 1 group receiving the information leaflet, and were then contacted 3 months later for a second interview. Knowledge significantly increased in the true sensitized group (+11.9%) compared

with the control group (+2.6%, $p < 0.05$). In addition, the frequency of patients who cited lung function test as the primary diagnostic tool for COPD increased by +14.4% in the true sensitized group versus+2.0% in the control group ($p < 0.05$). This study shows that information leaflet significantly improve their knowledge of COPD.

Bourbeau, J et.al., (2006) conducted a study to determine whether disease management with self-management education is more cost-effective than usual care among previously hospitalized COPD patients. Economic analysis in conjunction with a multicenter randomized clinical trial comparing patients conducting self-management with those receiving usual care over a 1-year follow-up period.. One hundred ninety-one. additional cost of the self-management program as compared to usual care, $3,778 (2004 Canadian dollars) per patient, exceeded the savings of $3,338 per patient based on the study design with a caseload of 14 patients per case manager. The self-management intervention would be cost saving relative to usual care (cost saving of $2,149 per patient; 95% confidence interval, $38 to $4,258). The program of self-management in COPD holds promise for positive economic benefits with increased patient caseload and rising costs of hospitalization.

Andreas, S et.al.,(2009) reports that 50% of older smokers develop chronic obstructive pulmonary disease (COPD) and more than 80% of COPD-associated morbidity is caused by tobacco smoking. Despite the severe symptoms from which COPD patients suffer, they are often unable to quit smoking on their own. Experts from 9medical societies have developed guideline on smoking cessation in COPD followed by a Delphi process. A smoking cessation strategy based on a combination of medication and psychosocial support has been found to be effective in COPD patients. Smoking cessation improves pulmonary function, alleviates dyspnea and cough, reduces the frequency of COPD exacerbations, and lowers mortality.. Smoking cessation is the most effective and least expensive.

Kanniammal.(2000) conducted a study to evaluate the effectiveness of breathing exercises on pulmonary function and quality of life of patients with COPD .Quasi-experimental design was used. purposive sampling was used to select 40 samples for the study. Lung function was assessed by pulse rate, respiration chest expansion and quality of life by physical activity, emotional status. The findings were post test score was higher than the pre test in quality of life by 12.6% for breathing status, 16.9%inphysical activity, 10.6% in daily activities,

33.6% in emotional status and over all 19.7% increase in quality of life of patients with COPD.

Shaji,M.(2009) conducted a study to assess the effectiveness of video assisted teaching module on self care management of COPD among 45 patients in Annal Gandhi memorial hospital, Trichy. Quasi-experimental design was used. Purposive sampling was used to select 45 samples for the study. Knowledge questionnaire and checklist was used to assess knowledge and practice. The findings were post test score was higher than the pre test. Mean pre test knowledge percentage was 37.54% with the mean of 19.5 (SD=2.16) and Mean post test knowledge percentage was 68.5% with the mean of 35.8 (SD=3.24). Mean pre test practice percentage was 35.8%with the mean of 16 (SD=2.) and Mean post test practice percentage was 67.2% with the mean of 35 (SD=3).

H) STUDIES RELATED TO IMPORTANCE OF EDUCATION:

Harris, M and Veale, A.(2008)reported the effectiveness of patient education programs for people with COPD to ensure that limited health resources are being spent effectively and to look for ways of designing more effective programs. Programs which also aim to improve disease management self-efficacy hold promise but further

determinants of health behavior should be included also, as part of more systematic program design. Program components need to be clearly described and the rationale for their use justified in trial reports. This will produce an evidence base that should show what role education programs can play in improving outcomes, and inform the development of more effective programs.

Roberts, N.J and Partridge, M.R. (2008).explains in his article, if patients are to participate fully in their care and in the management of a long-term condition such as chronic obstructive pulmonary disease, good communication is essential. However, not all patients are able to use the written word and we need to be aware of the size of this problem and its implications for the way in which we give information and conduct medical consultations. The impact of health literacy on outcomes can be considerable and improvements can be made by being aware of the problem, offering information in several different forms, and by reinforcing the spoken word with pictorial images.

I) NURSES ROLE IN PATIENT EDUCATION:

Efraimsson, E.O et.al.,(2008) Conducted study to examine the effects of a structured educational intervention programme at a nurse-led primary health care clinic on quality of life knowledge about COPD and smoking cessation in patients with COPD. This study had an experimental design in which 52 patients with COPD from a Swedish primary care setting were randomized into two groups. A statistically significant increase was noted in the intervention group on quality of life, the number of patients who stopped smoking and patients' knowledge about COPD at the follow-up, 3-5 months after intervention. The evidence suggests that a structured programme with self-care education is needed to motivate patients for life-style changes.

Zackrisson ,A. (2005) conducted a descriptive, qualitative study to assess the nurses experience of educating the patients with COPD.A descriptive, qualitative study was conducted, with interviews of 12 COPD nurses. The findings are the nurse adapts the education individually so that the patient can reach the goal of strengthening their self-care agency. The COPD nurses are patient-focused, but this will conflict with the traditional form of management, which is task-oriented. The nurses' feeling of security in their profession can be

strengthened by support from colleagues and by increased knowledge in promoting the learning of others.

PART-III:EFFECTIVENESS OF VIDEO ASSISSTED TEACHING PROGRAMME:

An audio visual aid is an instructional device in which the message can be heard as well as seen. For the individual approach and the group approach, in modern systems of teaching the television is made use of extensively. Pre recorded video tapes can be played through TV in any place. The arrangement is compact and requires little space and time for manipulation. The images which initiates or stimulate and reinforce learning. It helps the process of learning. i.e. Motivation and stimulation. It provides significant gains in informational learning, retention, recall, thinking, reasoning and activity interest, which enhances personal growth and development.

(Neeraja K. P., 2003)

Steringberg et.al., (1996) reported that video taped education lie on acceptable and effective strategy when used in conjunction with other method. Varying the medium for education will meet the unique learning needs of more patients.

Gangliono's (1988) states critical assessment on the use of video media for patient education states that video is good as more effective in increasing short term knowledge, promote compliance with medical regimen.

Brancato et.al.,(1999)conducted a randomized, controlled, prospective study to evaluate the effectiveness of two forms of asthma education in the pediatric emergency department. : 48 parents were enrolled in the control/handout group and 58 in the intervention/video group. The groups were equal with regard to level of education (p=.64) and relationship to the patient (p=.39) the mean baseline and discharge scores for the control group were 13.2 and 12.1. (p=.39) Those for the intervention group were 13.1 and 13.1. (p=.43). A videotape education intervention produced no additional knowledge in parents of asthmatic children either alone or in comparison to a standard asthma handout.

Navarre et.al.,(2007) conducted a study on effectiveness of DVD computer based teaching on the use of inhaler and ability to correctly demonstrate inhaler technique. Total of 34 adults with pulmonary disease and experience using inhalers were randomized into the control or intervention groups. The intervention group viewed the tutorial, after which they

demonstrated their inhaler technique and completed an Inhaler Technique Knowledge Test. The intervention group demonstrated significantly better inhaler technique, with a mean Observed Inhaler Technique Score of 88.3 ± 12.3 compared with 67.4 ± 19.2 for the control group (p = 0.001). The intervention group also scored significantly higher on the Inhaler Technique Knowledge Test, with a score of 80.9 ± 17.0 versus 67.4 ± 11.8 for the control group (p = 0.01). Overall, the program was acceptable to patients.

Ernest et.al.,(1999)conducted a study to evaluate the usefulness of Patient Oriented Problem Solving (POPS) method of teaching Pharmacology and to compare its effect with teaching using audiovisual aids. The POPS session was evaluated using a pre-test and post-test., a multiple choice questions (MCQs) test to evaluate memory retention and a problem solving questions (PSQs) test on common clinical conditions to evaluate analytical skill were conducted. In the POPS method, there was a significant improvement in the post-test scores over the pretest scores showing that even without lectures, problem solving ability developed in patients. On comparing the MCQs test scores with the POPS post-test scores, more patients had scored higher in the

MCQs. Teaching through AVA lectures positively influences both memory retention and analytical skill.

Stellfson,C et.al.,(2009) conducted a study to examine the efficacy of DVD technology compared to print-based material in COPD self-management education of 40 rural patients in Federal rural health using random assignment of samples to two groups. Pretest- Posttest design with a control group. A MANCOVA testing planned Multivariate contrasts determined patients receiving a DVD reported statistically significant higher levels of lung-specific physical functioning as compared to patients receiving a Pamphlet. Additionally, DVD patients Reported clinically significant improvements on two dimensions of lung-Specific quality of life.

For teaching videos are being used extensively specially in the field of Nursing. Nurse has a major role in primary prevention of diseases by implementing health education in various settings. Video assisted teaching programme is one of the teaching methods which can be used in any setup. Many studies in nursing has been carried out to assess the effectiveness of video assisted teaching programme which were found to be effective and an efficient teaching intervention with regard to knowledge, attitude and skill.

Research results show that the educational motion pictures can teach factual materials effectively and can modify their health behaviors. It can contribute to long term retention of knowledge as it is utilizing various sense organs. Hence this study is also carried out to assess the effectiveness of Video assisted Teaching programme on Self care management of COPD.

CHAPTER – III

METHODOLOGY

This chapter deals with the research approach, design, setting of the study, population criteria for sample selection, tool ,scoring procedure, validity,reliability,Pilot study and data collection procedure.

RESEARCH APPROACH

An evaluative approach was selected for the study to determine the effectiveness of video-assisted teaching programme on self care management among patients with COPD.

RESEARCH DESIGN

The research design adopted for the present study was one group pretest post –test- pre experimental design.

SCHEMATIC REPRESENTATION

Pre test	Intervention	Post test
O_1	X	O_2

O1 - Pretest knowledge and practice regarding self care management among patients with COPD.

X - Implementing video assisted teaching programme on self care management among patients with COPD.

O2 - Post test knowledge and practice regarding self care management among patients with COPD.

SETTINGS OF THE STUDY

The study was conducted at IRT - Perundurai medical college hospital, sanatorium, Perundurai. It belongs to the road transport corporation. It is 364 bedded hospital. The new block has 2 floors and consists of all the specialties including medicine, surgery, ENT, pediatric, nephrology, orthopedics, diabetology, pulmonology, obstetrics and gynecology. It has the services like out patient department, inpatient department, emergency and intensive care unit. It has separate male and female wards, ICU, medical wards, surgery, HIV wards, special and deluxe wards and sanatorium block which has 5 wards- SW ward, ward-201 to 205 with 25 beds in each ward. Patients with respiratory conditions like tuberculosis, COPD, Bronchitis, bronchial asthma are admitted in this in patient department. The total in patients of 10,562 got registered in a year and 882 inpatients were

registered in the month. The numbers of patients admitted with COPD are 50-70 per month with average of 12-15 patients in a week.

POPULATION

In the present study the target population was defined as patients with COPD admitted in IRT - Perundurai medical college hospital, Perundurai.

SAMPLE

In the present study sample constitutes of patients who are diagnosed as COPD with in the age group of 20 – 60 yrs admitted in IRT - Perundurai medical college hospital, perundurai. Erode district.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria:-

1. Patients with the age group of 20 – 60 yrs.
2. Both males and females diagnosed as COPD.
3. Patients who can understand and speak Tamil.
4. Patients who are willing to participate in the study.
5. Patients with hospital stay for minimum of 7 days.

Exclusion criteria:-

- Patients with other associated respiratory diseases.
- Patients with visual problems and hearing impairment.
- Patients with who are critically ill.
- COPD Patients with other complications.

SAMPLE SIZE:-

The sample for the study consists of 50 patients with COPD.

SAMPLING TECHNIQUE:-

Purposive sampling technique was used for the selection of the samples.

INSTRUMENT AND SCORING PROCEDURE:-

Description of the tool:

The tool consists of 3 parts

Part - I

The demographic variables of COPD patients were age, sex, educational status, occupation, type of family, monthly income, residential area, marital status, religion and duration of illness.

Part – II

Structured interview schedule was used to assess the knowledge regarding self care management among patients with COPD. It consists of 35 multiple choice questions with 4 options for each question and patients are expected to choose one correct option for each question

Part – III

Rating scale was used to assess the practice regarding self care management of COPD among patients with COPD. It consists of 15 statements on practice and rated by the scale consisting of Always, Most often, Some times, rarely and Not at all.

Scoring of the tool and score interpretation:-

Part – II

Structured interview schedule: Scoring procedure was used to assess knowledge on self care management among patients with COPD, which consists of 35 multiple choice questions ,score 'one'(1) was given for the correct response and zero (O) was given for the wrong responses and total score is 35.

Knowledge	Score	Percentage
Adequate knowledge	25-35	70%-100%
Moderately adequate Knowledge	13-24	35 -69%
Inadequate knowledge	1-12	0-34%

Part – III

Rating scale was used to assess the knowledge on practice consisting of 15 items out of which 10 statements are positive statements and 5 negative statements. Total score is 60.

Positive and Negative response score was measured as follows

Positive statement		Negative statement,	
Always	- 4	Not at all	- 4
Most often	- 3	rarely	- 3
Some times	- 2	some times	- 2
Rarely	- 1	Most often	- 1
Not at all	- 0	Always	- 0

Knowledge on practice	Score	Percentage
Adequate	41-60	68%-100%
Moderately adequate	21-40	34%-67%
Inadequate	1-20	0-33%

VALIDITY

The content validity of the tool was done by submitting the tool to the 5 experts -4 nursing expert in the field of medical surgical nursing and one medical expert for validating the tool regarding adequacy of the content and the sequence in framing questions. Based on their valid suggestions, reframing of the tool was done.

RELIABILITY

The reliability of the structured interview schedule regarding knowledge and practice on self care management among patients with COPD was established by testing the stability and internal consistency. Stability was assessed by Test Retest method, the Karl Pearson correlation of co-efficient formula was used to find out the effectiveness of the tool. For knowledge the value was found to be reliable (r=0.91), the split half method was used to find out the internal consistency of the tool, where the spearman"s brown prophecy formula was used. The

value was found be reliable (R=0.9).Hence interview schedule was found to be reliable.

The test retest method was used to assess the stability of knowledge on practice questionnaire. It was found to be reliable (r=0.91). The spearman's brown prophecy formula was used to assess the internal consistency by using split half technique. The value was found to be reliable (R= 0.92).

PILOT STUDY:

The pilot study was conducted in IRT-Perundurai medical college hospital for a period of seven days. Written permission was obtained from the Dean. The researcher obtained oral permission from each participant to the study. The purpose of the study was explained to the subject prior to the study. 5 Patients were selected from the medical ward by using purposive sampling techniques that satisfy the inclusion criteria. The researcher introduced about the study to the patients and established rapport with them and demographic variables were collected. The knowledge and practice regarding self care management was assessed using structured interview schedule and practice was assessed by rating scale for 30 minutes before giving structured teaching programme. Video assisted teaching was given for 40 minutes

immediately after pretest for all the 5 patients in group. Effectiveness was assessed on the 7th day with same structured knowledge questionnaire and rating scale for practice. Data were analyzed and effectiveness was evaluated. The findings of the pilot study revealed that mean post test knowledge and practice score was higher than the mean pre test knowledge and practice score and found that it is feasible and practicable to conduct the main study.

DATA COLLECTION PROCEDURE

The main study was conducted at IRT- Perundurai medical college hospital, sanatorium block, Perundurai. The written permission was obtained from the Dean of Perundurai medical college hospital. Ward staff were informed about the objectives of the study. Oral consent was obtained from the samples. The data was collected in the month of August during which 50 patients who fulfills the selection criteria were selected by purposive sampling. The investigator introduced about the study and rapport was established. The patients from 4 wards 201,202,204 and205 were selected as samples for the study. The data was collected in a rotation from all 4 wards. Everyday 3-4 samples were selected. The first day demographic variables were assessed and pre test was conducted to assess knowledge and practice using structured interview schedule for 30 minutes followed by video

assisted teaching programme on self care management of COPD for 40 minutes in the first ward. The same procedure was continued for next 3 wards to conduct pre test. Then on the 7th day post test was conducted for samples using same structured interview schedule in the first ward. The post tests for remaining 3 wards were conducted on the following days. The same procedure was followed to obtain data from 50 samples. The results were analyzed and the effectiveness was evaluated.

PLAN FOR DATA ANALYSIS

Sl. No	Data analysis	Methods	Remarks
1.	Descriptive statistics	Frequency percentage Mean, standard deviation	To describe the demographic variables of patients with COPD To assess the pre and post test knowledge and practice of self care management among patients with COPD
2.	Inferential statistics	Paired 't' test Karl Pearson correlation	To evaluate the effectiveness of video assisted teaching programme on self care management among patients with COPD. To determine the correlation between knowledge and practice on self care management among patients with COPD

		Chi square	To find out the association between the posttest knowledge and practice on self care management among COPD patients with their selected demographic variables.

PROTECTION OF HUMAN SUBJECTS

The proposed study was conducted after the approval of the dissertation committee. The written permission was obtained from the Dean, Perundurai medical college hospital. The oral consent was obtained by the researcher from the subjects before data collection. Assurance was given to them that confidentiality will be maintained.

CHAPTER – IV

This chapter deals with the analysis and interpretation of the data collected to assess the effectiveness of the video assisted teaching module regarding self-care management in terms of knowledge and practice among COPD patients.

Kerlinger (1973) defines analysis as the categorizing of data to obtain to research problem on questions.

Analysis is a process of organizing and synthesizing data in such a way that the research questions can be answered and hypothesis tested.

(Polit and Hungler 1990)

The analysis of data collected from 50 patients with COPD admitted at 1RT. Perundurai Medical College hospital to assess the effectiveness of video assisted teaching programme regarding self care management of COPD.

ORGANIZATION OF DATA

Section A	**:**	Assess the demographic variables.
Section B	**:**	Comparison between pretest and post test knowledge scores and practice scores regarding self care management among patients with COPD.
Section C	**:**	Correlation of post test knowledge scores with Post test practice regarding self care management among patients with COPD.
Section D	**:**	Association between post test knowledge score regarding self care management among patients with COPD with their selected demographic variables.
Section E	**:**	Association of post test practice scores Regarding self care management among patients with COPD with their selected demographic variables.

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SECTION – A

DISTRIBUTION OF DEMOGRAPHIC VARIABLES

Table : 1

Frequency and Percentage distribution of patients with COPD according to their demographic variables.

n=50

Sl. No.	Demographic variables	Frequency	Percentage %
1	**Age**		
	a. 21-30 years	2	4
	b. 31-40 years	9	18
	c. 41-50 years	19	38
	d. 51-60 years	20	40
2.	**Sex**		
	Male	31	62
	Female	19	38
3.	**Marital Status**		
	Married	33	66
	Unmarried	2	4
	Widower/Widow	12	24
	Divorcee	3	6
4.	**Religion**		
	Christian	15	30
	Hindu	28	56
	Muslim	7	14

5.	**Educational Status**		
	No formal education	15	30
	Primary School	17	34
	Higher Sec.Edu.	18	36
	Graduates	-	0
6.	**Occupation**		
	Self employee	17	34
	Govt. Employee	10	20
	Private employee	13	26
	Unemployed	10	20
7.	**Type of family**		
	Nuclear family	28	56
	Joint family	22	44
	extended family	-	-
8.	**Monthly income**		
	Below Rs.2000	11	22
	2001-4000	15	30
	Rs.4001-6000	15	30
	Rs.6000 and above	9	18
9.	**Residential area**		
	a. Urban	20	40
	b. Rural	30	60
10.	**Duration of illness**		
	2-5 yrs	15	30
	5-8 yrs	14	28
	8-10 yrs	21	42
	Above 10 yrs	-	-

The above table (1) showed distribution of patients with COPD according to their age group depicts that the highest percentage 20(40%) of patients belonged to the age group of 51-60 years; 19(38%) were in the age group 41-50 years; 9(18%) were in the age group of 31-40 years and only 2(4%) of patients were from 21-30 years. It shows that most of the patients were above 51 years of age and COPD affects the older adults. (Fig.2).

Percentage wise distribution of patients with COPD according to their sex reveals the higher percentage 32(62%) were males when compared to females 19(38%).Males are more affected than females. (Fig.3)

The data showed that most of the patients 33(66%) were married, 12(24%) were widower/widow and only 2(4%) and 3(6%) were unmarried and divorcee respectively. (Fig.4).

Distribution of patients with COPD showed that most of the patients were Hindus 28(56%), 15(30%) of patients were Christians and 7(14%) were Muslims. Hindus are more in the area.(Fig.5).

Distribution of patients with COPD according to their educational status depicts that the 18(36%) of the patients had higher

secondary education, 17(34%) had primary school education and 15(30%) had no formal education and no graduates. (Fig.6).

With regard to the occupation, 17(34%) of patients with COPD were self employed, 13(26%) were private employee and 10(20%) were unemployed and 10(20%) of them were government employee. It might be due to the poor educational status. (Fig.7).

Majority of 28(56%) of patients with COPD belonged to nuclear family and 22(44%) of patients were from joint family. (Fig.8)

In relation to monthly income, 15(30%), 15(30%) were between the monthly income group of Rs.2001- Rs.4000- and Rs.4001-Rs.6000 respectively. 11(22%) were in the income group of below Rs.2000/- and 9(18%) belonged to the income group of Rs.6000/- and above.(Fig.9).

Distribution of patients with COPD according to their area of residence reveals that the most 30(60%) of them were from rural area and 20(40%) were from urban area. (Fig.10).

According to the distribution of patients with COPD on the basis of duration of illness 21(42%) were suffering from COPD for past 8-10 years, 15(30%) and 14(28%) of them were suffering for 2-5 years back and 5-8 years back respectively. (Fig.11).

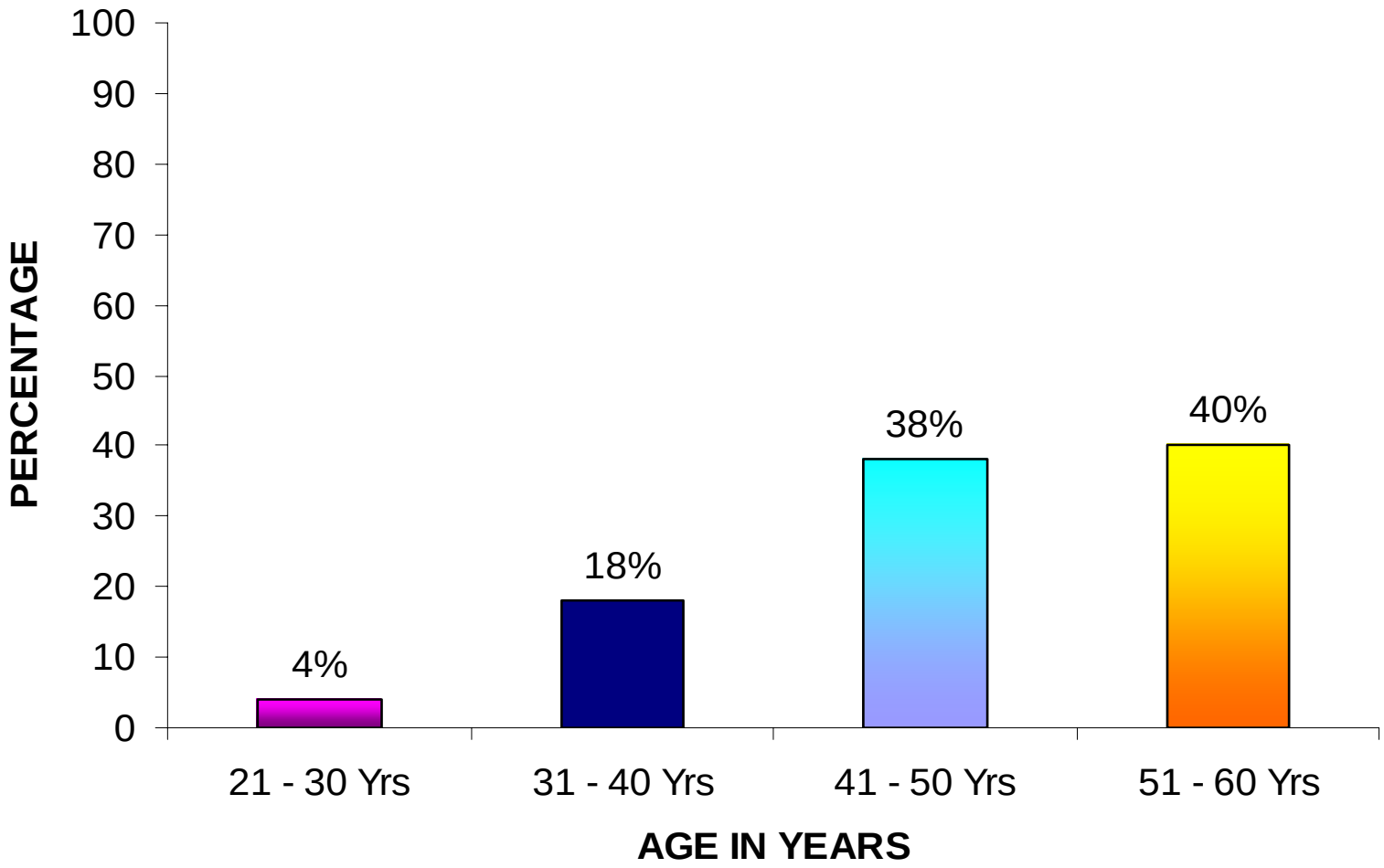


Fig. 2: Distribution of the patients with COPD according to age in years.

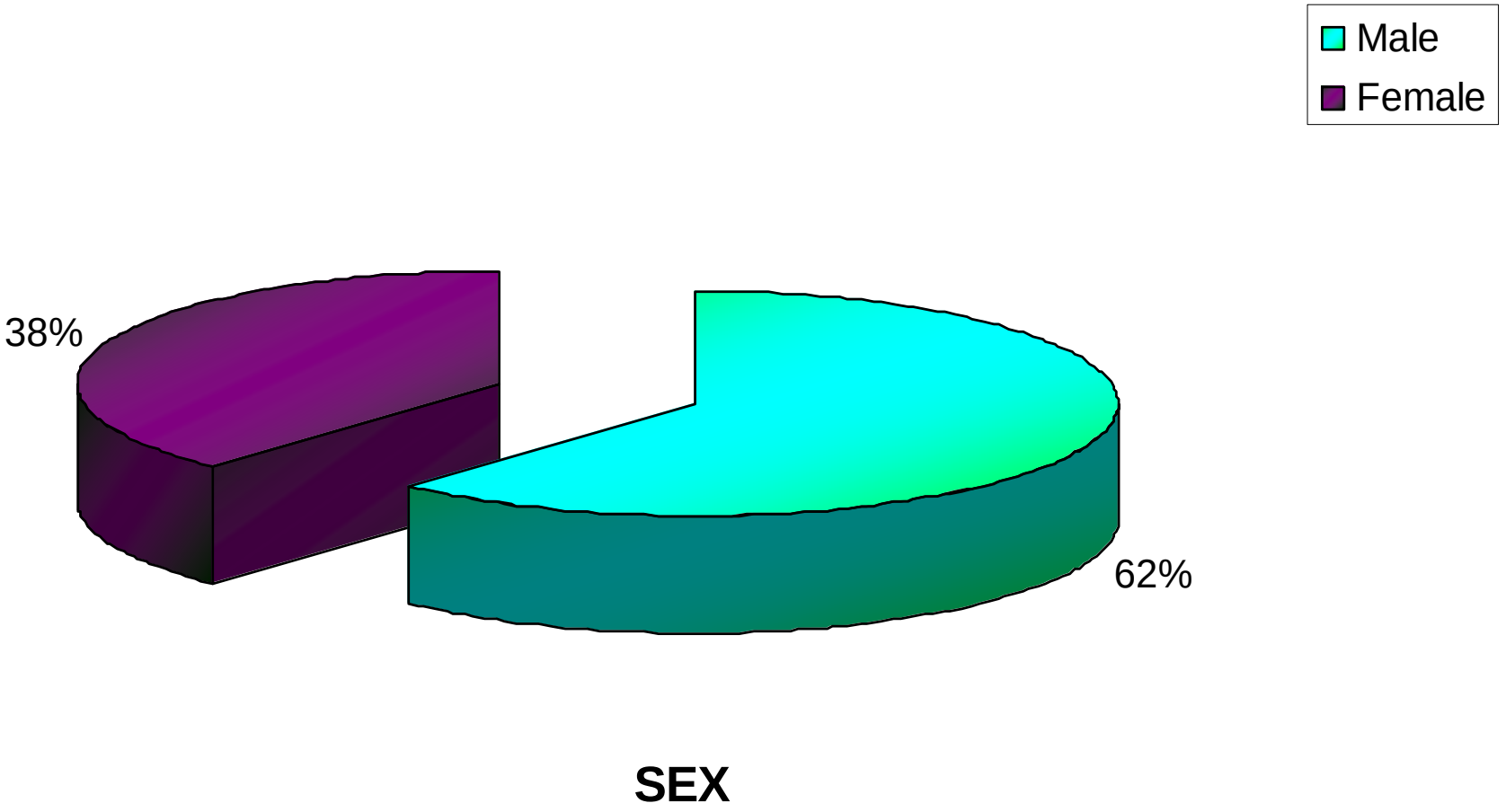


Fig.3.Percentage distribution of patients with COPD according to sex

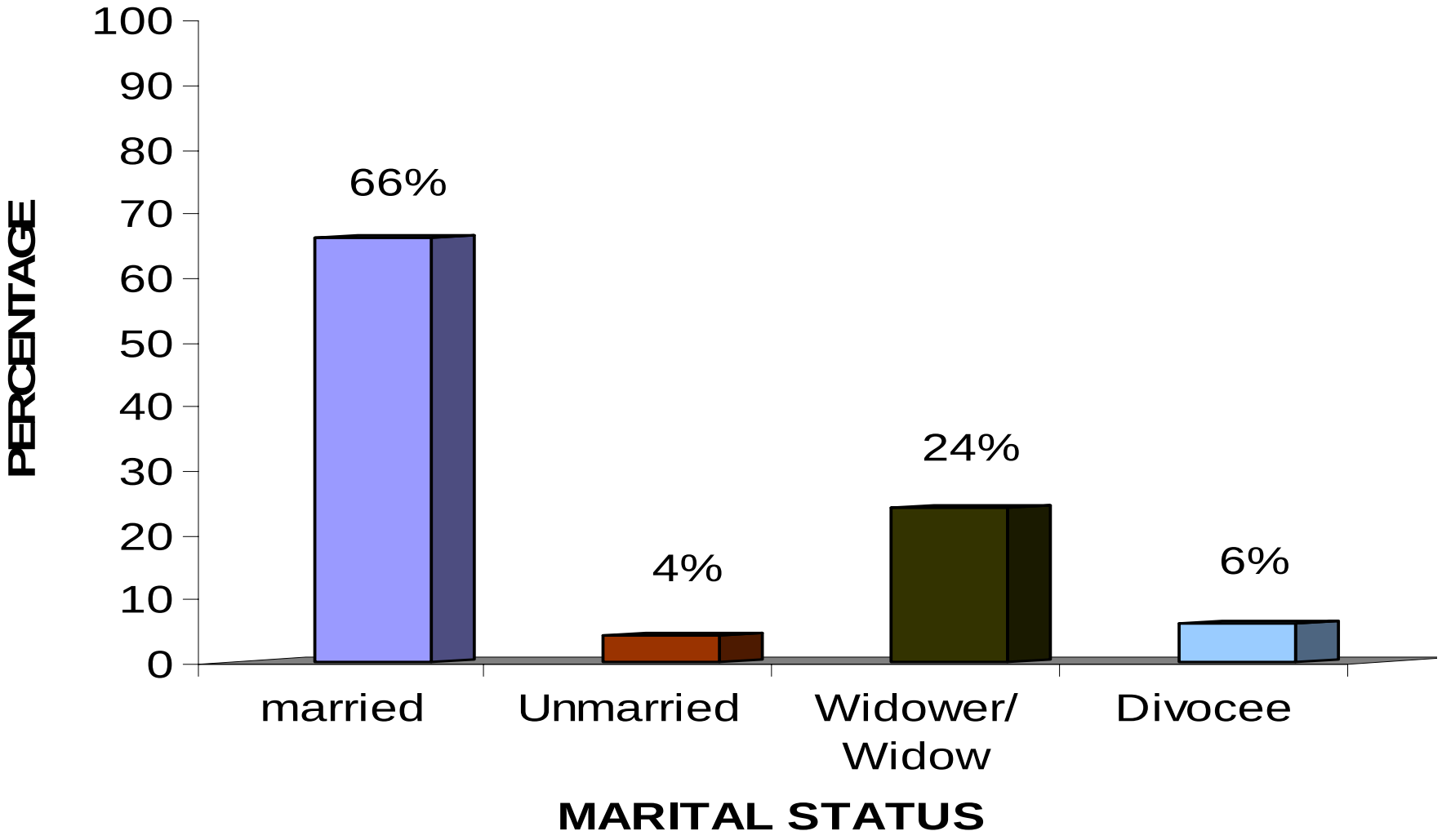


Fig.4.Percentage distribution of patients with COPD according to marital status

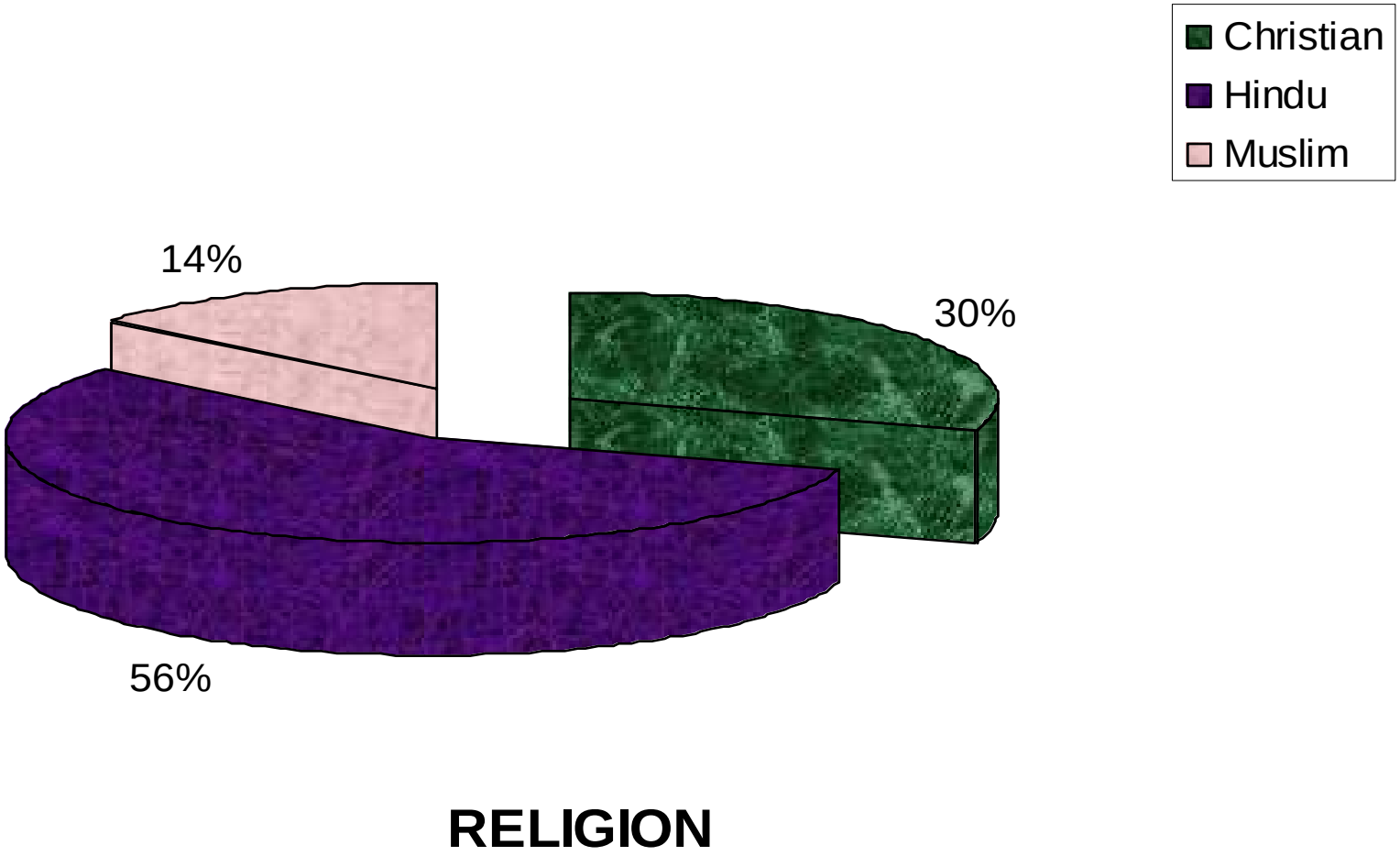


Fig.5. Percentage distribution of patients with COPD according to religion

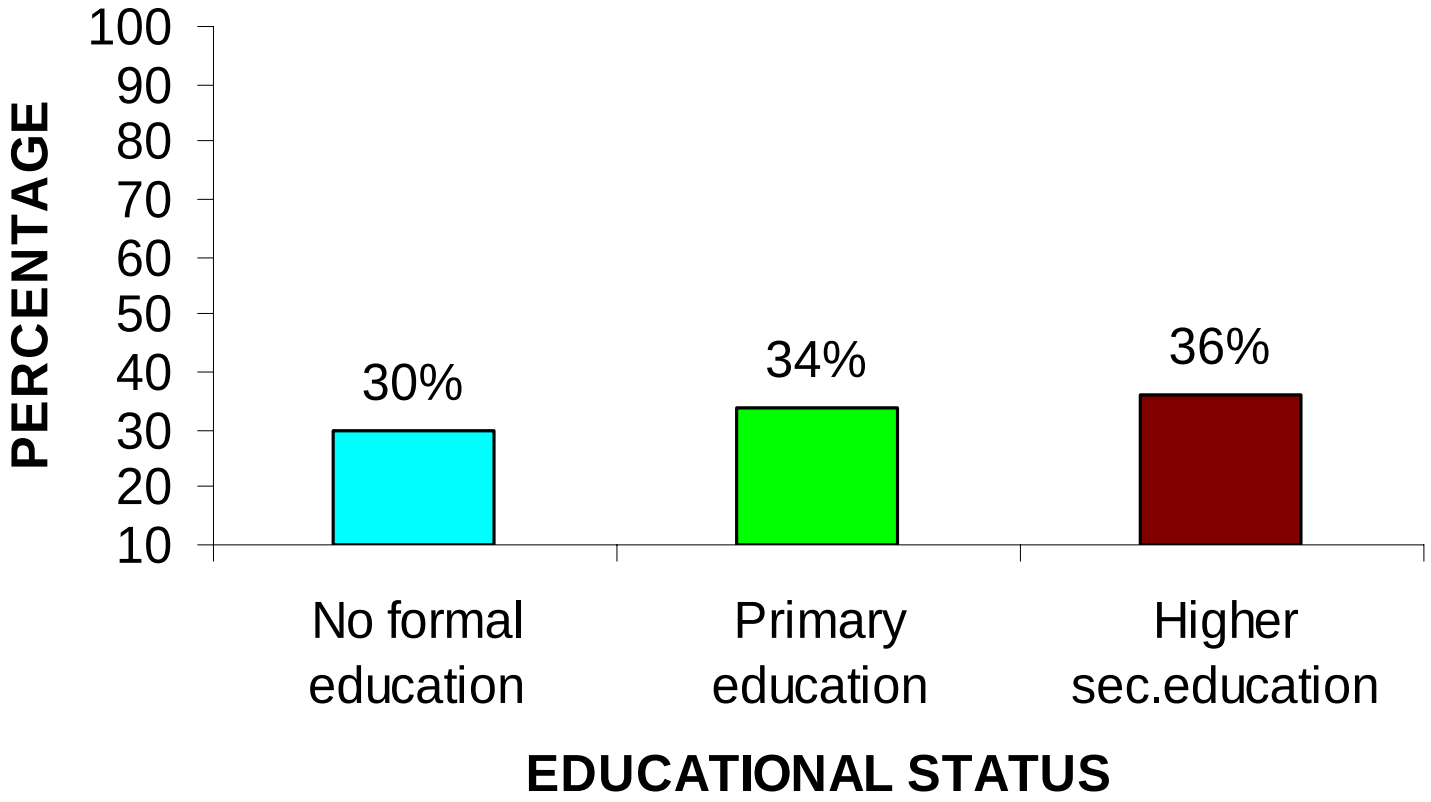


Fig.6.Percentage distribution of patients with COPD according to education

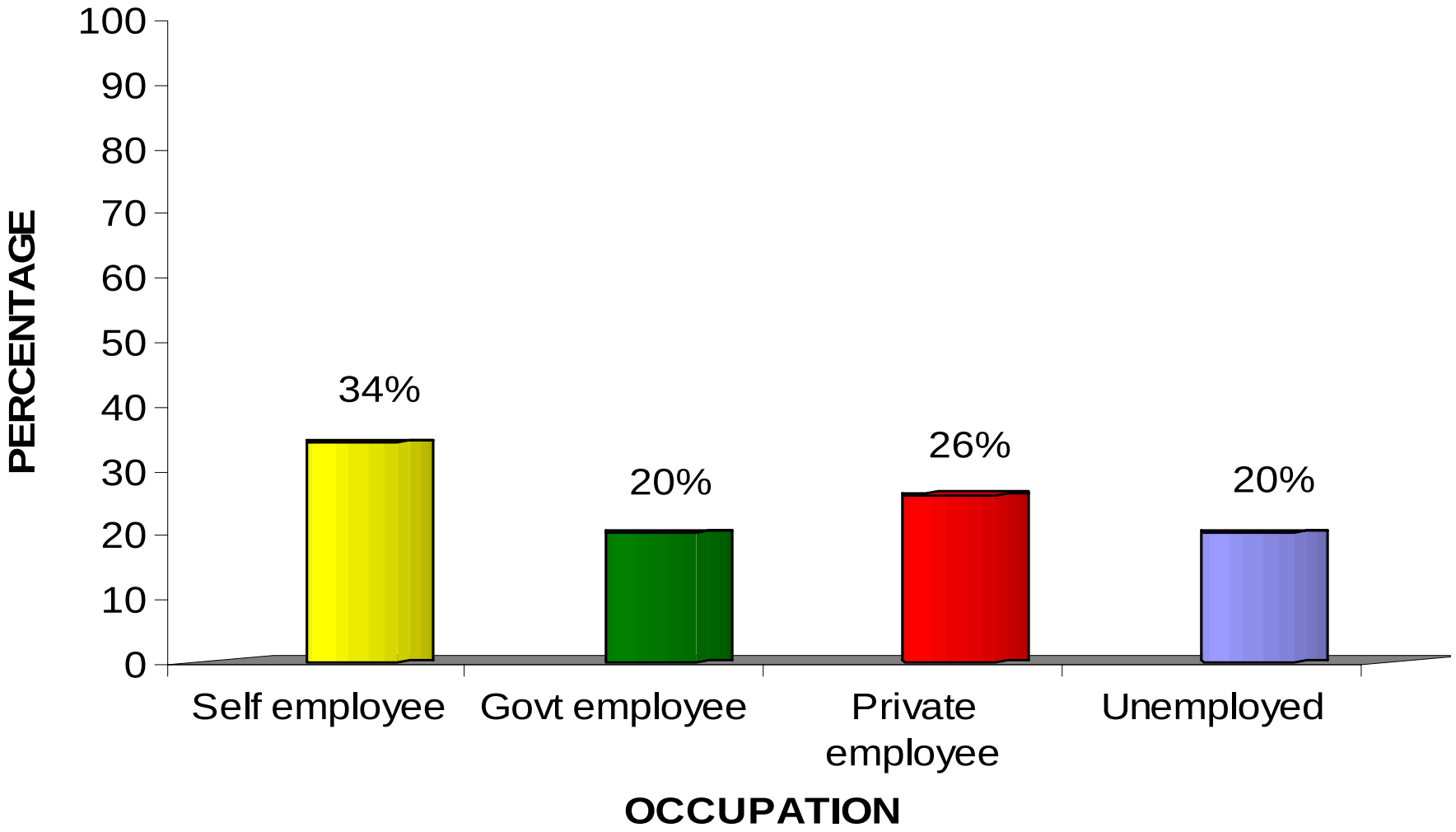


Fig.7.ercentage distribution of patients with COPD according to occupation

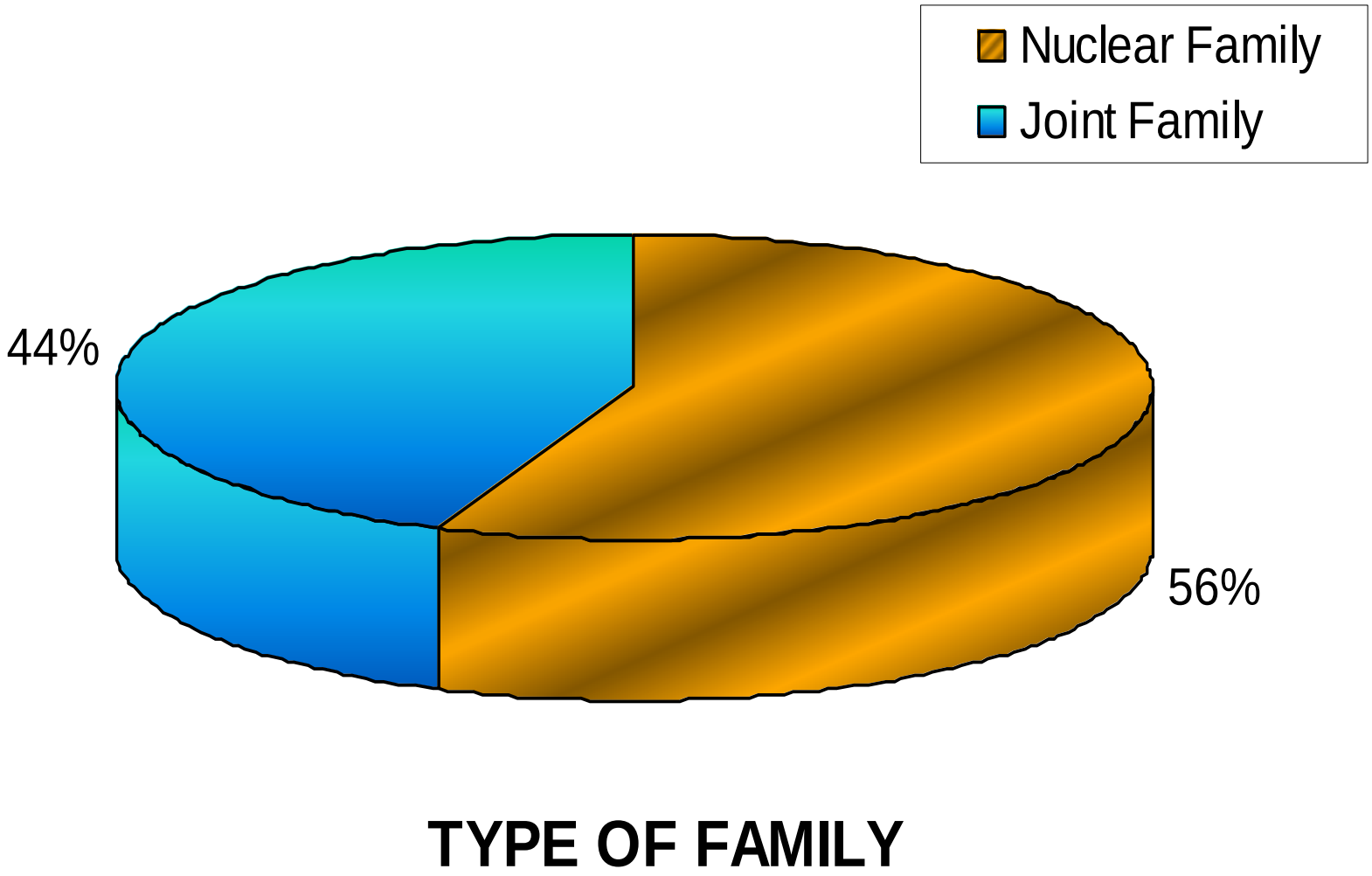


Fig. 8.ercentage distribution of patients with COPD according to type of family

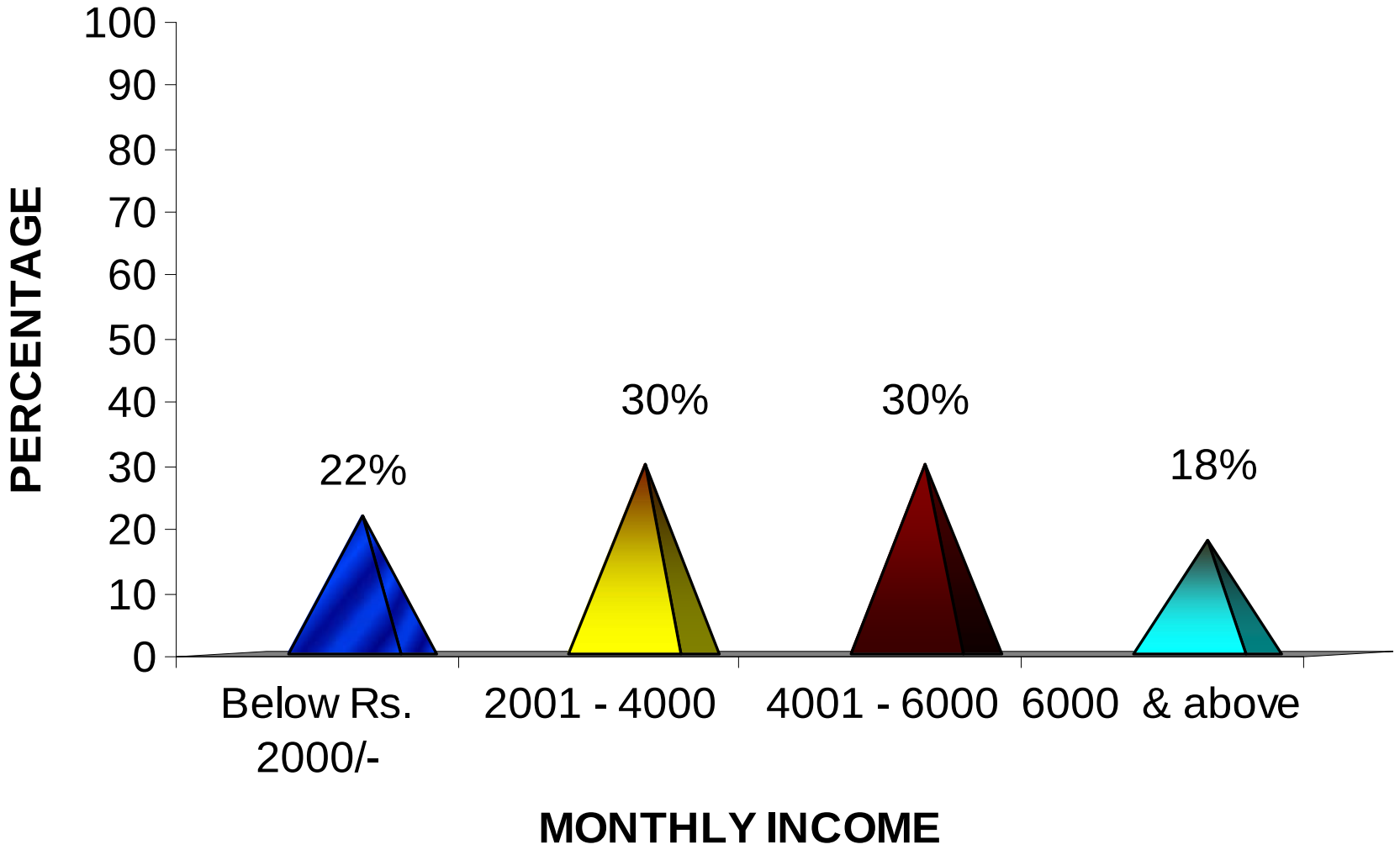


Fig.9.Percentage distribution of patients with COPD according to monthly income

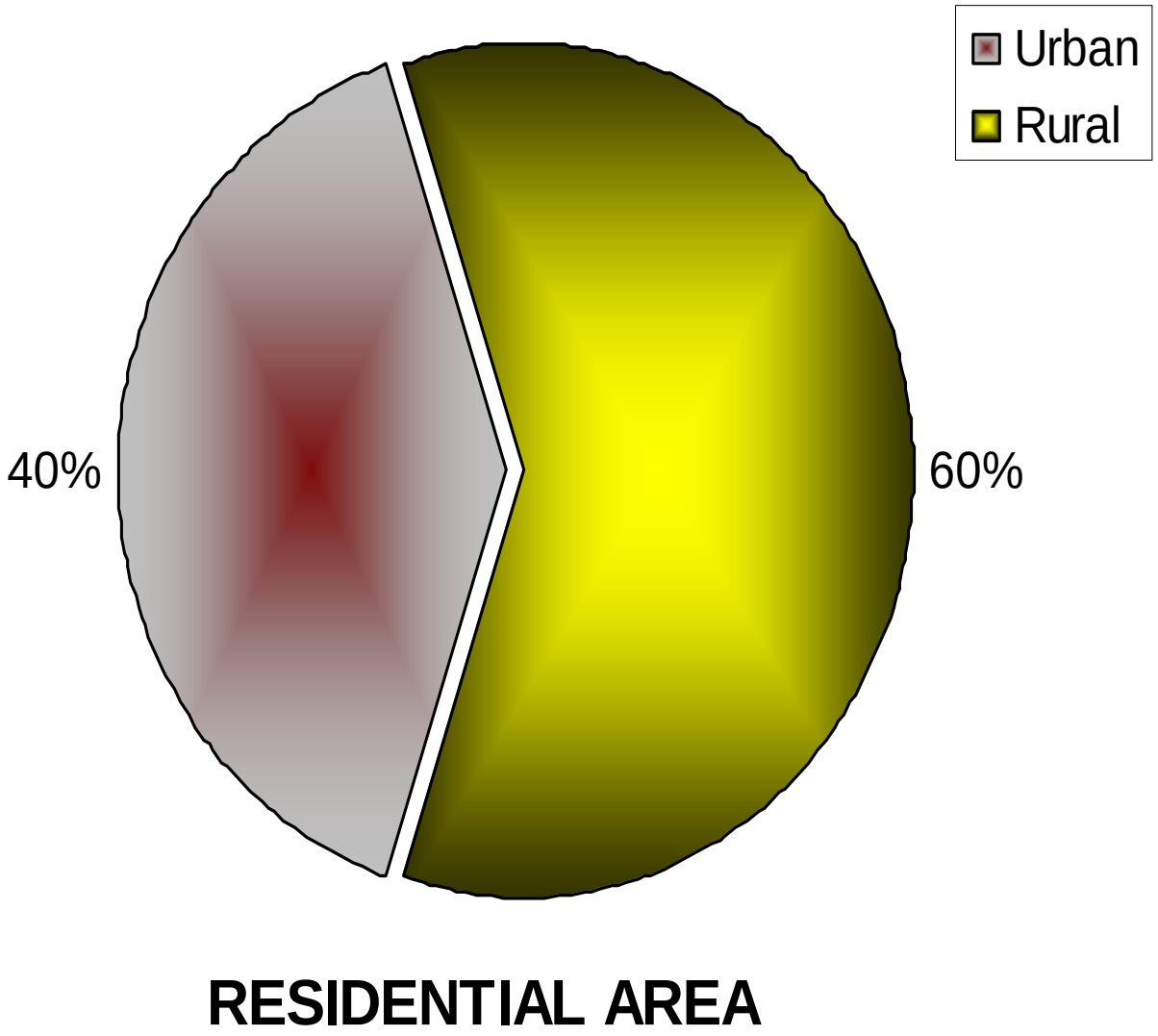


Fig. 10. Distribution of patients according to area of residence

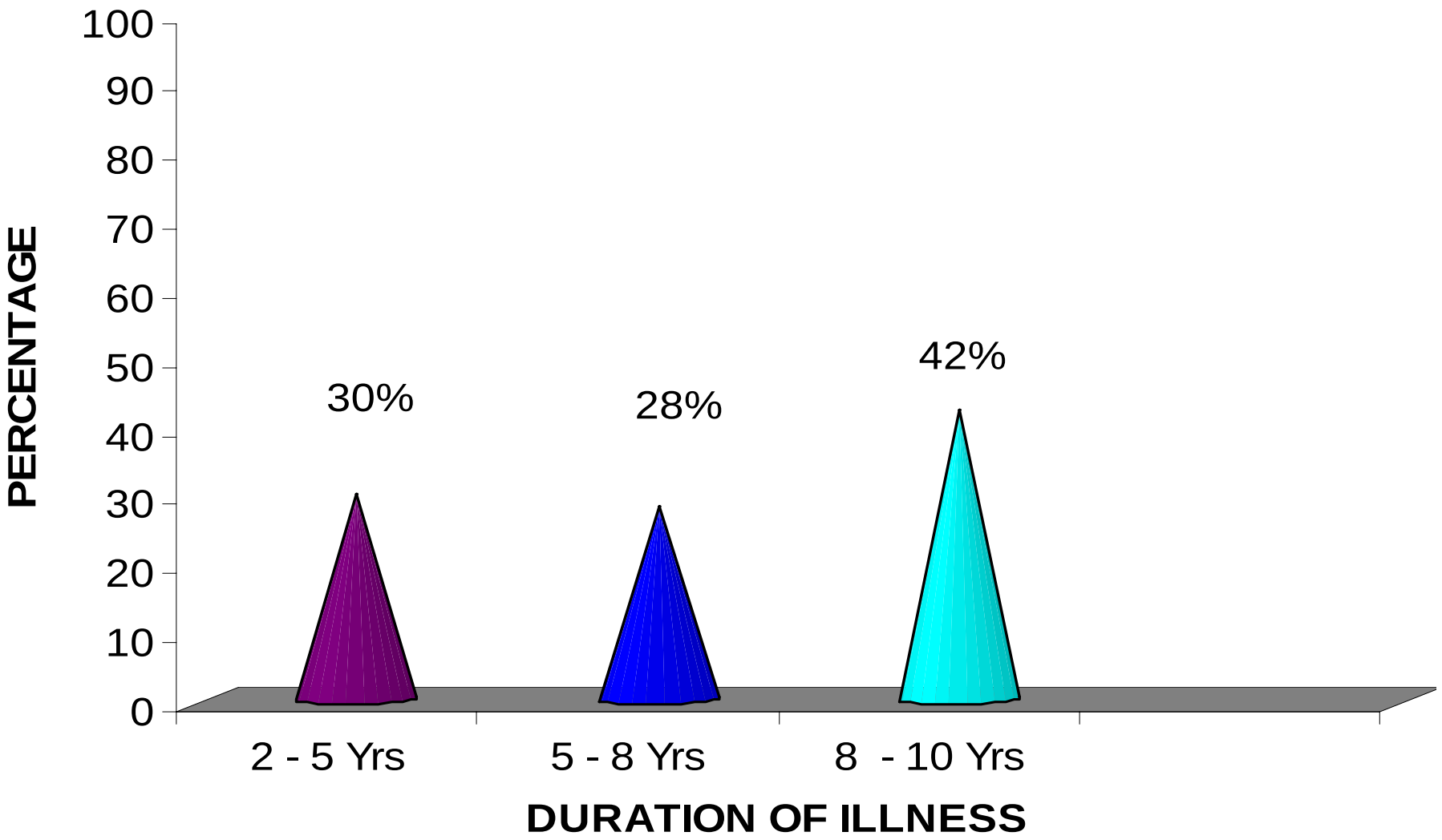


Fig.11.Percentage distribution of patients with COPD according to duration of illness

SECTION – B

COMPARISON BETWEEN PRETEST AND POST TEST KNOWLEDGE AND PRACTICE REGARDING SELFCARE MANAGEMENT AMONG PATIENTS WITH COPD.

Table.2: Comparison between pretest and post test knowledge score regarding self care management among patients with COPD.

n=50

Level of knowledge	Pretest		Post test	
	f	%	f	%
Adequate knowledge	2	4	41	82
Moderately Adequate knowledge	15	30	8	16
Inadequate knowledge	33	66	1	2
Total	**50**	**100**	**50**	**100**

Table 2 showed that in pretest of 33 (66%) had Inadequate knowledge 15 (30%) of patients had moderately adequate knowledge and 2 (4%) of patients had inadequate knowledge regarding self care management among patients with COPD.

In posttest 41(82%) had adequate knowledge, 8(16%) had moderately adequate knowledge and 1 (2%) had inadequate knowledge regarding self care management among patients with COPD.

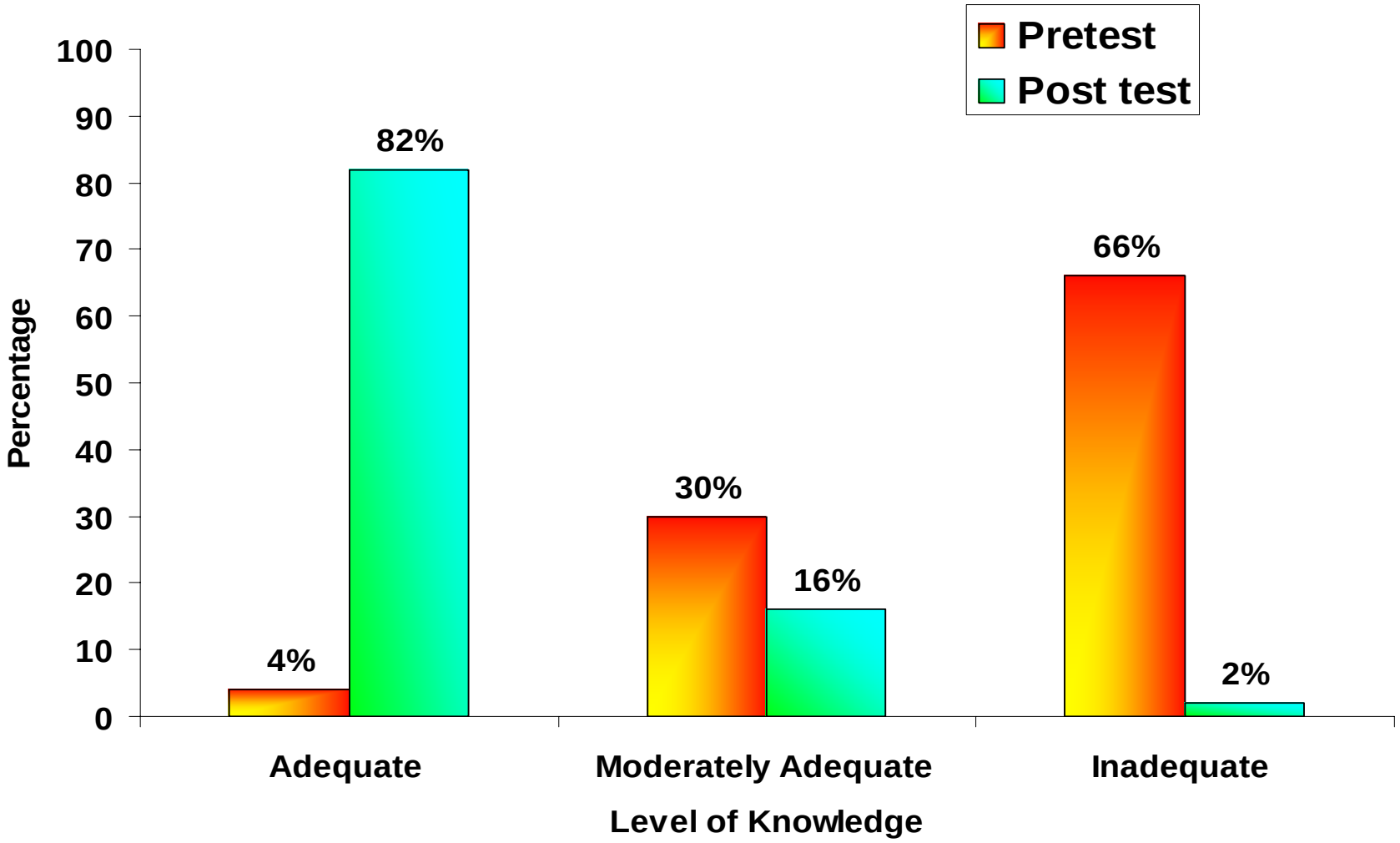


Fig.12.Comparison of pretest and posttest knowledge scores regarding self-care management

Table 3: Comparison of pretest and post test practice Score regarding self care management among patients with COPD

n=50

Level of practice	Pretest		Post test	
	f	%	**f**	%
Adequate practice	3	6	39	78
Moderately Adequate practice	12	24	10	20
Inadequate practice	35	70	1	2
Total	**50**	**100**	**50**	**100**

Table 3 showed that in pretest, 3(6%) of patients with COPD had adequate practice, 12(24%) had moderately adequate practice and 35(70%) had inadequate practice regarding self care management among patients with COPD.

In post test, 39 (78%) of them had adequate practice, 10(20%) had moderately adequate practice and 1(2%) had inadequate practice regarding self care management among patients with COPD.

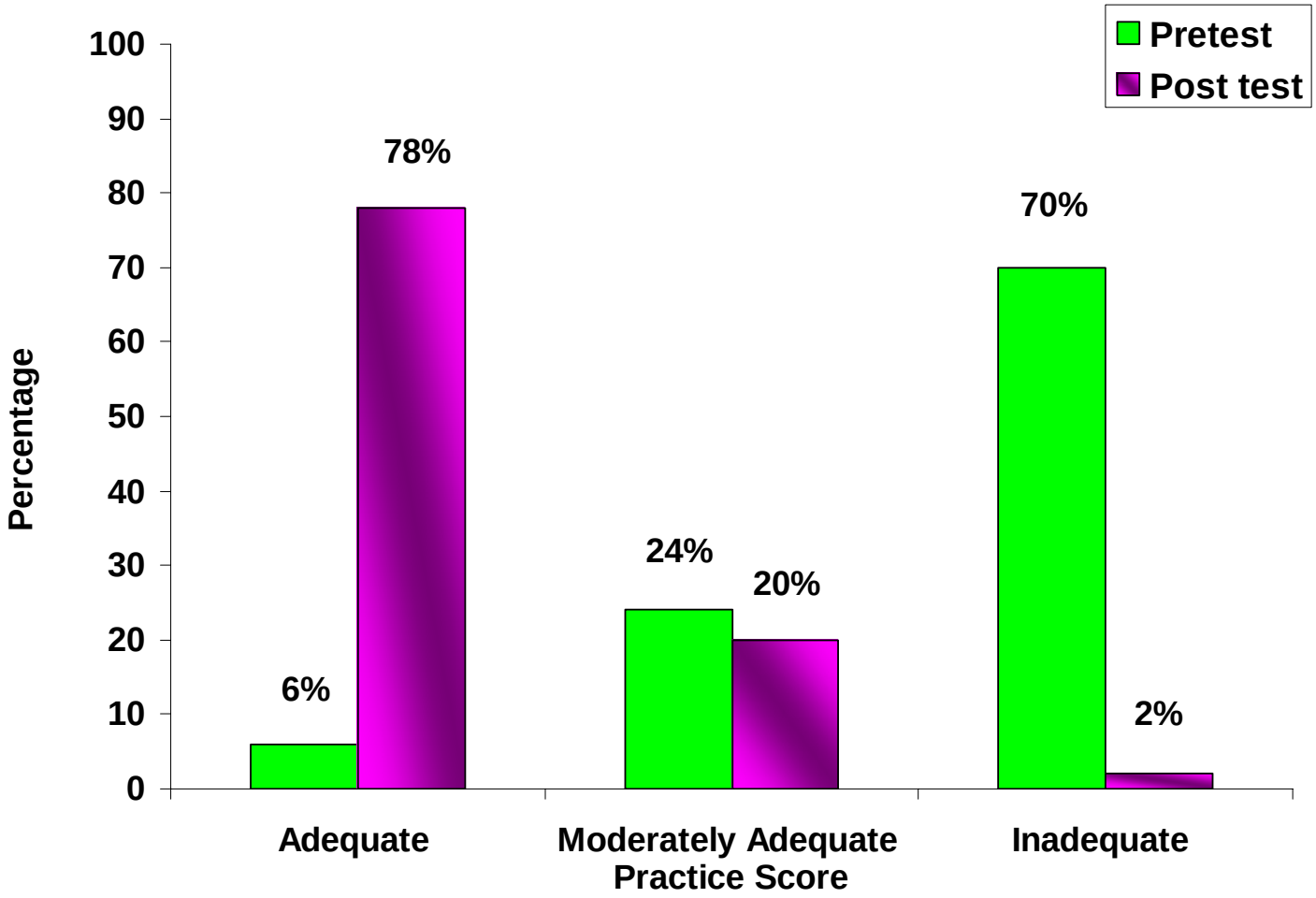


Fig.13.Comparison of pretest and posttest practice scores regarding self-care management among patients with COPD

Table : 4

Comparison of mean, standard deviation and paired't' value of pretest and post test knowledge scores regarding self care management among patients with COPD

n=50

Sl. No.	Variable	Mean	SD	't'	Table value
1.	Pretest	12.66	3.39	30.6	1.671
2.	Post test	26.22	2.77		

df(49) ($p<0.05$)

Table 4 showed that mean scores of pretest and post test of knowledge regarding self care management among patients with COPD were 12.66(SD±3.39) and 26.22(SD± 2.77) respectively.

The post test mean scores were higher than pretest mean scores. The 't' value is 30.6 which was significant at 0.05 level. The paired "t" test shows that calculated value (30.6) is greater than the table value (1.671).

Table – 5

Comparison of mean, SD and paired't' value in pretest and post test practice regarding self care management among the patients with COPD.

n=50

Sl. No.	Variable	Mean	SD	't' Value	Table value
1.	Pretest	21	5.6	26.41	1.671
2.	Post test	41.8	3.68		

df(49) ($p<0.05$)

Table 5 showed that mean scores for pretest and post test practice regarding self care management among patients with COPD were 21 (SD±5.6) and 41.8 (SD±3.68) respectively.

The post test mean scores were higher than the pretest mean scores. The 't' value is 26.41. The paired "t" test shows that calculated value (26.41) is greater than the table value (1.671) which is significant at 0.05 level.

SECTION – C : CORRELATION OF POST TEST KNOWLEDGE SCORES WITH PRACTICE SCORES REGARDING SELF CARE MANAGEMENT AMONG PATIENTS WITH COPD.

Table - 6 : Correlation between the mean post test knowledge and practice scores regarding self care management among of patients with COPD.

n=50

Sl. No.	Variable	Mean	Co-efficient of correlation	Table value
1.	Pretest knowledge	26.22	0.94	0.273
2.	Post test practice	41.8		

(df= 48) ($p<0.05$)

Table 6 showed that there was positive correlation (r=0.94) between mean post test knowledge and practice scores regarding self care management among patients with COPD.

SECTION – D : ASSOCIATION OF POST TEST KNOWLEDGE REGARDING SELF CARE MANAGEMENT AMONG PATIENTS WITH COPD WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table - 7 : Association of post test knowledge scores regarding self care management among patients with COPD with their selected demographic variables.

S. No.	Demographic variables	Level of knowledge						χ^2	Table value	Inference
		Adequate		Moderately adequate		Inadequate				
		No	%	No	%	No	%			
1	**Age in yrs**									
	21-30	1	2	1	2	-	-			
	31-40	9	18	0	0	-	-	0.756	3.841	NS
	41-50	16	32	3	6	1	2			
	51-60	16	32	4	8	-	-			
2	**Sex**									
	Male	26	52	5	10	-	-	0.192	3.841	NS
	Female	15	30	3	6	1	2			
3	**Marital status**									
	Married	27	54	5	10	1	2			
	Unmarried	2	4	0	0	-	-	0.0011	3.841	NS
	Widower/Widow	11	22	1	2	-	-			
	Divorcee	2	4	1	2	-	-			
4	**Religion**									
	Christian	11	22	4	8	-	-	0.001	3.841	NS
	Hindu	24	48	3	6	1	2			
	Muslim	6	12	1	2	-	-			
5	**Educational Status**									
	No formal education	10	20	5	10	-	-	6.06	3.841	S
	Primary school education	16	32	1	2	-	-	6.06	3.841	
	Higher sec.education	15	30	2	4	1	2			

6	**Occupation**									
	Self employee	14	28	3	6	-	-			
	Govt.employee	8	16	1	2	1	2	0.104	3.841	NS
	Private employee	12	24	1	2	-	-			
	Unemployed	7	14	3	6	-	-			
7	**Type of family**									
	Nuclear family	24	48	3	6	1	2	0.5921	3.841	NS
	Joint family	17	34	5	10	-	-			
	Extended family	-	-	-	-	-	-			
8	**Monthly family income**									
	Below Rs.2000	9	18	2	4	-	-			NS
	Rs.2001-4000	13	26	2	4	-	-	0.248	3.841	
	Rs.4001-6000	11	22	3	6	1	2			
	Rs.6000 and above	8	16	1	2	-	-			
9	**Residential area**									
	Urban	17	34	2	4	1	2	0.1131	3.841	NS
	Rural	24	48	6	12	-	-			
10	**Duration of illness**									
	2-5 years	14	28	1	2	-	-			
	5-8 years	11	22	2	4	1	2	0.826	3.841	NS
	8-10 years	16	32	5	10	-	-			
	Above 10 years	-	-	-	-	-	-			

(df=1) S – Significant, N.S. – Not Significant P< 0.05

(Table 7) Chi-square values were calculated to find out the association of post test knowledge scores regarding self care management among patients with COPD with their selected demographic variables.

There was no significant association between the post test knowledge and demographic variables of age, sex, marital status, religion, occupation, type of family, income, area of residence, and duration of illness except for education (χ^2 =6.06) which is significant.

SECTION – E

ASSOCIATION OF POST TEST PRACTICE SCORES REGARDING SELF CARE MANAGEMENT AMONG PATIENTS WITH COPD WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

Table : 8

Association of post test practice scores regarding self care management among patients with COPD with their selected demographic variables.

S. No.	Demographic variables	Level of knowledge						χ^2	Table value	Inference
		Adequate		Moderately adequate		Inadequate				
		No	%	No	%	No	%			
1	**Age in yrs**									
	21-30	2	4	0	0	-	-			
	31-40	9	18	0	0	-	-	5.478	3.841	S
	41-50	14	28	4	8	1	2			
	51-60	14	28	6	12	-	-			
2	**Sex**									
	Male	20	40	10	20	-	-	0.732	3.841	NS
	Female	19	38	-	-	1	2			
3	**Marital status**									
	Married	24	48	7	14	1	2			
	Unmarried	2	4	0	0	-	-	0.023	3.841	NS
	Widower/Widow	10	20	2	4	-	-			
	Divorcer	1	2	2	4	-	-			
4	**Religion**									
	Christian	11	22	4	8	-	-	3.246	3.841	NS
	Hindu	22	44	5	10	1	2			
	Muslim	5	10	2	4	-	-			
5	**Educational Status**									
	No formal education	9	18	6	12	-	-			
	Primary school education	14	28	3	6	-	-	5.181	3.841	S
	Higher sec.									

	education	15	30	2	4	1	2			
	Graduates	-	-	-	-	-	-			
6	**Occupation**									
	Self employee	11	22	6	12	-	-			
	Govt. employee	9	18	0	0	1	2	0.0016	3.841	NS
	Private employee	10	20	3	6	-	-			
	Unemployed	8	16	2	4	-	-			
7	**Type of family**									
	Nuclear family	23	46	4	8	1	2			
	Joint family	15	30	7	14	-	-	2.614	3.841	NS
	Extended family	-		-						
8	**Monthly family income**									
	Below Rs.2000	9	18	2	4	-	-			
	Rs.2001-4000	8	16	7	14	-	-			
	Rs.4001-6000	12	24	2	4	1	2	2.935	3.841	NS
	Rs.6000 and above	9	18	0	0	-	-			
9	**Residential area**									
	Urban	16	32	3	6	1	2			
	Rural	22	44	8	16	-	-	1.056	3.841	NS
10	**Duration of illness**									
	2-5 years	14	28	1	2	-	-			
	5-8 years	10	20	3	6	1	2	9.419	3.841	S
	8-10 years	14	28	7	14	-	-			
	Above 10 years	-		-						

(df=1) S – Significant, N.S. – Not Significant P< 0.05 level

Chi square values were calculated to find out the association between the practice regarding self care management among patients with COPD with their demographic variables.

There was an association between age (χ^2=5.478), educational status (χ^2 =5.181) and duration of illness (χ^2=9.419). Other demographic variable marital status, religion, education, occupation and area of residence had no association with practice regarding self care management of COPD.

CHAPTER – V

DISCUSSION, SUMMARY

This chapter presents the interpretation of the statistical findings. It has been discussed based on the objectives of the study.

The aim of the study was to assess the knowledge and knowledge on practice of patients with COPD regarding self care management at Perundurai. A sample of 50 patients with COPD who met the inclusion criteria were selected for the study by using purposive sampling method. After the pre test, video assisted teaching was given. Post test was done after 7 days of intervention.

Description of the sample characteristics

Distribution of patients with COPD according to their age group depicts that the highest percentage 20(40%) of patients belonged to the age group of 51-60 years; 19(38%) were in the age group 41-50 years; 9(18%) were in the age group of 31-40 years and only 2(4%) of patients were from 21-30 years. It shows that most of the patients were above 51 years of age and COPD affects the older adults.

Percentage wise distribution of patients with COPD according to their sex reveals the higher percentage 32(62%) were males when compared to females 19(38%).Males are more affected than females.

The data showed that most of the patients 33(66%) were married, 12(24%) were widower/widow and only 2(4%) and 3(6%) were unmarried and divorcee respectively.

Distribution of patients with COPD showed that most of the patients were Hindus 28(56%), 15(30%) of patients were Christians and 7(14%) were Muslims. Hindus are more in the area.

Distribution of patients with COPD according to their educational status depicts that the 18(36%) of the patients had higher secondary education, 17(34%) had primary school education and 15(30%) had no formal education and no graduates. With regard to the occupation, 17(34%) of patients with COPD were self employed, 13(26%) were private employee and 10(20%) were unemployed and 10(20%) of them were government employee. It might be due to the poor educational status.

Majority of 28(56%) of patients with COPD belonged to nuclear family and 22(44%) of patients were from joint family.

In relation to monthly income, 15(30%), 15(30%) were between the monthly income group of Rs.2001- Rs.4000- and Rs.4001-Rs.6000 respectively. 11(22%) were in the income group of below Rs.2000/- and 9(18%) belonged to the income group of Rs.6000/- and above.

Distribution of patients with COPD according to their area of residence reveals that the most 30(60%) of them were from rural area and 20(40%) were from urban area.

According to the distribution of patients with COPD on the basis of duration of illness 21(42%) were suffering from COPD for past 8-10 years, 15(30%) and 14(28%) of them were suffering for 2-5 years back and 5-8 years back respectively.

This chapter attempts to discuss the finding of the study as per objective. .

1. Assess the pretest knowledge and practice score regarding self care management among patients with COPD.
2. Assess the post test knowledge and practice scores regarding self care management among patients with COPD.
3. Compare the pretest and post test knowledge scores regarding self care management among patients with COPD.

4. Compare the pretest and post test knowledge scores regarding self care management among patients with COPD
5. Correlate the post test knowledge with practice scores regarding self care management among patients with COPD.
6. Find out the association between post test knowledge regarding self care management among patients with COPD with their selected demographic variables.
7. Find out the association between post test practice scores regarding self care management among patients with COPD with their selected demographic variables.

FIRST OBJECTIVE : Assess the pretest knowledge and practice regarding self care management among patients with COPD.

On assessment of knowledge regarding self care management among 50 patients with COPD, Majority of patients 33(66%) had inadequate knowledge and 15(30%) had moderately adequate knowledge and 2(4%) had adequate knowledge in pretest. In pretest practice on self care management of COPD, 35(70%) had inadequate practice and 12(24%) had moderately adequate practice. It is revealed that there was a need for video assisted teaching programme for the patients with COPD regarding self care management.

The findings are consistent with the findings of Shaji.M(2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD at Trichy. The study findings showed that in the pre test the mean percentage of knowledge was 37.54% and mean percentage of practice was 35.8%. This showed that patients with COPD had inadequate knowledge and practice regarding self care management.

SECOND OBJECTIVE : Assess the post test knowledge and practice scores regarding self care management among patients with COPD.

The assessment of post test knowledge regarding self care management among 50 patients with COPD revealed 82% of the patients had adequate knowledge and only 16% had moderate knowledge and only 2% had inadequate knowledge.

Majority of 78% of the patients with COPD had adequate practice and 20% of the patients had moderately adequate practice and only 2% had inadequate knowledge.

After being exposed to the video assisted teaching programme the knowledge and practice score had been markedly increased.

The findings are consistent with the findings of Shaji.M (2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD. The study revealed that mean percentage of knowledge in post test was 68.85% and mean percentage of practice score in post test was 67.2%. This showed that there is increase in the knowledge and practice among patients with COPD.

THIRD OBJECTIVE : Compare pretest and post test knowledge scores regarding self care management among patients with COPD.

The assessment of knowledge score of patients with COPD after being exposed to video assisted teaching programme showed that the knowledge level of patients had been markedly increased as evidenced by the post test analysis. It was found that post test mean, SD, was 26.22 (SD$\pm$2.77) which is higher than the mean score of 12.66 (SD$\pm$3.39) in the pretest. It is highly significant at $p<0.05$ level. Hence the research hypotheses H1; The mean post test knowledge score is significantly higher than mean pretest knowledge score was accepted.

The findings are consistent with the study findings of Shaji.M (2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD. She has concluded that post

test knowledge mean 35.8(SD±3.24) was higher compared to the pre test mean 19.5(SD±2.16).

FOURTH OBJECTIVE : Compare the pretest and post test practice scores regarding self care management among patients with COPD.

Table 7 shows that the practice level of patients with COPD in post test had mean score of 41.8 (SD±3.68) which was increased compared to the mean score of 21 (SD± 5.6) in the pretest. It is highly significant at $p<0.05$ level. Therefore the research hypotheses H2; mean post test practice score is higher than the mean pretest practice scores regarding self care management among patients with COPD was accepted.

The findings are consistent with the study conducted by Shaji.M (2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD.The results of this study is that the level of practice in post test had mean of 35(SD± 3) and the pre test mean score was 16(SD± 2.1).It was concluded that level of practice significantly increased after video assisted teaching programme.

FIFTH OBJECTIVE : Correlate the post test knowledge scores with practice scores of patients with COPD.

There was a positive correlation (r=0.94) between mean post test knowledge and practice score of patients with COPD regarding self care management (table 6). Further, it could be inferred that knowledge and practice depends on each other the reason might be when the knowledge is improving, the practice also is changed. Hence the research hypotheses H3;There will be significant correlation between post test knowledge score and post test practice score on self care management among patients with COPD was accepted.

These findings were supported by the similar study done by Kanniammal (2000) to evaluate the effectiveness of breathing exercises in improving the quality of life of 40 patients with COPD. There was a positive correlation between the breathing exercises and quality of life (r=0.45) and activities of daily living(r=0.54).

SIXTH OBJECTIVE : Find out the association between post test knowledge score regarding self care management among patients with COPD with their selected demographic variables.

It revealed that there was no statistically significant association between the selected demographic variables with the post test

knowledge regarding self care management among patients with COPD expect for education (6.06).

The results are supported by the study findings of Shaji.M (2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD which revealed that there was no significant association between post test knowledge scores with their selected demographic variables.

SEVENTH OBJECTIVE : Find out the association between post test practice score regarding self care management among patients with COPD with their selected demographic variables.

The findings of the study showed that the association of the post test practice regarding self care management among patients with COPD had association with their demographic variables like age, education and duration of illness.

The findings are contradictory to the findings of Shaji.M (2009) to assess the effectiveness of video assisted teaching programme regarding self care management of COPD. The study revealed that there was no association between post test practice score of patients with COPD with their selected demographic variables.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATION, RECOMMENDATION AND LIMITATION

This Chapter briefly presents the

- Summary of the study
- Conclusion
- Implications for nursing
- Recommendation
- Limitation

SUMMARY OF THE STUDY:

The study was done to assess the effectiveness of video assisted teaching programme regarding self care management among patients with COPD in terms of knowledge and practice.

An evaluative study with one group pretest, post test, pre experimental design was used for the study which was conducted at IRT- Perundurai Medical College Hospital. The total sample of the study was 50 patients with COPD. The Samples were selected by purposive sampling method who met the inclusion criteria. The study was based widenbach's helping art theory that assesses the

effectiveness through identifying of help, ministering the needed help and validating the need for help to achieve the central purpose. Review of literature helped the investigator to develop necessary tool. The instrument consists of three parts with demographic variables, structured knowledge questionnaire to assess knowledge, rating scale to assess practice.

The study was conducted at IRT- Perundurai Medical College Hospital COPD Patients admitted in the ward were included in the study and confidentiality was assured. The investigator gave brief introduction and pretest was conducted for 30 minutes and the video assisted teaching programme was conducted for 40 minutes. Post test was done on 7th day. The data collected was analyzed and interpreted using descriptive and inferential statistics. Effectiveness of video assisted teaching programme was assessed by paired't' test. Karl Pearson test was used to find out the correlation between knowledge and practice among patients with COPD. Chi–square test was used to find out the association the demographic variables with knowledge and regarding self care management among patients with COPD. There was an improvement in knowledge, and practice regarding self care management.

Finding showed that the video assisted teaching programme was effective in increasing the knowledge and practice among patients with COPD regarding self care management.

MAJOR FINDINGS OF THE STUDY:

- Most of the patients20 (40%) were in the age group of 51-60 Yrs and most of them were males 31 (62%) and majority were married33 (66%).
- Majority of patients were Hindus 28(56%) and 18(36%) had higher secondary education and relatively equal (30%) had no formal education.
- Many of them were self employed 17 (34%) and most of them lived in nuclear family28 (56%). Relatively equal percentage 15(30%) of patients with COPD had the family income of Rs.2001 – Rs.4000 and Rs.4001 – Rs.6000. Majority 30(60%) patients were from rural areas and highest percentage 21(42%) had been suffering from COPD for 8 to 10Yrs.
- Prior to implementation of Video assisted teaching programme 33 (66%) had inadequate knowledge and (15%) had moderately adequate knowledge whereas after implementation of video assisted teaching programme 41(82%) had adequate knowledge and 8(16%) had moderately adequate knowledge.

- Prior to implementation of video assisted teaching programme 35(70%) had inadequate practice and 12(24%) had moderately adequate practice whereas after implementation of video assisted teaching programme 39 (78%) had adequate practice and 10(20%) had moderately adequate practice.
- High degree of positive correlation was found between post test knowledge and practice scores (0.94).
- No significant association was found between the post test knowledge scores with their demographic variables except for education.
- Significant association was found between post test practice with their demographic variables. Significant association was found age, educational status and duration of illness.

CONCLUSION:

The existing knowledge regarding self care management among patients with COPD was inadequate and moderately adequate. The existing practice regarding self care management among patients with COPD was inadequate practice and moderately adequate practice. The video assisted teaching programme significantly increased the knowledge and practice as evidenced by the 't'value of knowledge ('t'value is 30.6), and practice ('t' value is 26.41) regarding self care

management among patients with COPD.The study findings revealed that there was a significant improvement in the knowledge of patients with COPD after video assisted teaching programme . The provision of video teaching programme will motivate the patients with COPD and help them to acquire knowledge and correct practice regarding self care management.

IMPLICATION:

The findings of the study have implications in various areas in nursing service, nursing education, nursing administration and nursing research.

NURSING SERVICE:

- The findings will help the nursing professional to assess the effectiveness of video assisted teaching programme and could implement health education programmes for COPD patients.
- Use of video assisted teaching programme will help in prevention of complication like cor pulmonale, heart failure etc, and improve the quality of life of the patient.
- Video assisted teaching programme may be used as a media to teach the patients with other chronic diseases.

- Use of Video assisted teaching programme will promote the knowledge, attitude and practice level of the patients.

NURSING EDUCATION:

- ❖ Nursing students should be educated on health promotions and prevention of complications in COPD.
- ❖ The Video assisted teaching programme is useful to enhance students knowledge, attitude and practice level of students and skill in educating the patient.
- ❖ The content of video assisted teaching programme will help the nursing professional working in the hospital and community for reinforcing their knowledge on COPD and self care management of COPD.
- ❖ The findings will help the student nurses to identify the need for health education and be motivated in participating and organizing teaching programme on self care management.

NURSING ADMINISTRATION:

- ❖ The findings will help the nurse administrator to take up an important role in organizing programme.

- ❖ The nurse administrator can plan the staff development programme for nurses on self care management of COPD to update their knowledge regularly.
- ❖ Nurse administrator also should plan the outreach activity in collaboration with other agencies in imparting the knowledge to the community.

NURSING RESEARCH:

- ❖ The findings can be utilized for further research in COPD.
- ❖ Conducting research in a large sample size for a longer period to know the effectiveness of video assisted teaching programme by assessing the decline in lung function.
- ❖ The study can be effectively utilized by the emerging researchers.

RECOMMENDATION:

- ❖ A similar study may be replicated with large samples for better generalization.
- ❖ The effectiveness of video assisted teaching programme can be done by adopting a comparative study among video assisted teaching programme and other instructional aids.
- ❖ The same study can be conducted with an experimental approach having a control group with larger samples.

- ❖ A comparative study can be conducted to assess the knowledge and practice of COPD patients in urban and rural settings.
- ❖ A Study may be done to assess the perception of patients regarding self care management of COPD.

LIMITATION:

Some patients were finding difficult to sit continuously for 40 minutes and concentrate.

BIBLIOGRAPHY

BOOKS :

1. Aggarwal, P et.al., (2005). "**Principles and practice of emergency medicine"**, (1st ed.). New Delhi: B.I Publication.
2. Alagappan, R. (2002)."**Manual of practice medicine", (**2nd ed.). New Delhi: B.I Publication.
3. Beare.et al.(1998)."**Adult health Nursing,"** (3rded.). St.Louis: Mosby publications.
4. Basavanthappa, B.T.(2003). "**Medical and surgical nursing**", (1st ed). New Delhi: Jaypee Brothers Medical Publishers(P) Ltd,167-169.
5. Black.M.Joyce.et.al.,(2004).**"Medical surgical nursing clinical management for positive outcomes**", (7thed.). New Delhi: Elsevier India private ltd,1814-1828.
6. Burns Nancy and Susan,K.Grove. (1993). **"The practice nursing research conduct critique and utilization,"** (1sted.). Philadelphia: W.B. Saunders Company.
7. Edwards,R.W et.al.,(1991)."**Davidson's Principles and practice of medicine"**, (16thed.). Hongkong: Longman group, 391-395
8. Dewit.C.S. (1998). "Essentials of medical surgical nursing",(4th ed.). Philadelphia :W.B.saunders company,430-436.

9. Gupta,S.G. and Kapoor,V.K. (1990). **"Fundamentals of mathematical statistics",** (1st ed.). New Delhi: Sultard chand publications.
10. Gurumani,N. (2005), "**An introduction to Biostatics",** (2nd ed.). New Delhi: MJP publishers (P) Ltd, 211 – 213, 347 – 369.
11. Kusum Samant. (2002). **"Medical surgical nursing",** (2nded.). New Delhi: Vora medical publications,472-475.
12. Kothari,C.R. (2000). **"Research methodology, methods and technique",** (2nd ed.). New Delhi: Wiley Eastern limited.
13. Linda,S.Williams et.al.,(1999).**"Understanding medical surgical nursing",** (1st ed.).Philadelphia: F.A. Davis Company,527-535.
14. Lewis,M.S et.al., (2004).**"Medical surgical nursing Assessment and management of clinical problems"**, (7thed.). London: Mosby company.
15. Luckman et.al., (1994). **"Medical surgical nursing",** (5th ed.). Philadelphia: W.B. Saunders.
16. Lemone et.al.,(2004). "**Medical surgical nursing, critical thinking is Clint care", (**3rded.). New Jersey: pea son prentice hall.
17. Manahan et.al., (1994). " **Nursing care of adults,"** Philadelphia: W.B. Saunders Company.

18. Munro,B.H. (1997). **"Statistical methods for health care research",** (3rded.). Philadelphia: Lippincott company, 132 -145.
19. Murray, F.J and nadel ,A.J. (1994) ."**Text book of respiratory medicine,"** Philadelphia :N.B Saunders, vol-2, 1331-1390
20. Neelam makhija. (2005). **"Introduction to nursing research",** (1sted.). New Delhi: A.P.jain and co publications, 33 – 36.
21. Nabendu pal and sahadeb sarkar. (2003). **"Statistics concepts and applications",** (2nded.). New Delhi: Prentice – Hall of India private ltd, 176 – 180.
22. Paulette,D.Rollant and Deborah,E.E. (1996). **"Medical surgical nursing",** (1st ed.). U.S.A: Mosby publications, 379 – 387.
23. Polit.D.F. (2008). **" Introduction to Nursing research",** (8th ed.). New Delhi: volters, J.B. lippincott publications, 507 – 583.
24. Prabhakara,G.N.(2006)."**Biostatistics"**, (1sted.). New Delhi: Jaypee Brothers Medical publishers (P) Ltd, 39 – 53.
25. Phipps, Long and Woods (1999). "**Shaffer's Medical Surgical Nursing"**, (7th ed.). New Delhi: B.I Publications Pvt. Ltd., 380-387.
26. Sundar Rao,P.S.S. (1999). **"An introduction to biostatistics", (**3rded.).New Delhi: Vora medical publications,145.

27. Fawcet and Jacqueline. (1999). **"The relationship of theory and research",** (3rd ed.). Philadelphia: F.A. Davis company, 203 .
28. Smeltzer ,C.Suzanne and Bare ,G. Brenda.(2004). "Brunner and Suddarths text book of medical and surgical nursing",(9thed.).Philadelphia:Lippincott publication,569-581.
29. Stephen,R.B. (2001). **"Toohey's Medicine",** (15thed.). New york:Churchill livingstone, 299 – 313.
30. Sharma ,RK. (2009). "**Text book of Nutrition for B.Sc Nursing,"** (1sted.). Hyderabad: Frontline Publications, 100-104.
31. Prabhakara,G.N.(2006)."**Biostatistics"**, (1sted.). New Delhi: Jaypee Brothers Medical publishers (P) Ltd, Page No: 39 – 53.
32. Wilma,J Phipps et.al., (1996). **"Shafer's medical surgical nursing",** (7thed.). New Delhi: BI publications Pvt. Ltd, 511 – 525.
33. White, Lois, and gene Duncan. (2002). "**Medical surgical Nursing, an integrated**
34. **Approach,"(** 2nd ed.) .Australia:Delmar Thomson learning.
35. William S.Linda and Paula D. Hopper. (1999). "**understanding medical surgicalNursing**", Philadelphia :FA Davis Company,527-535.

JOURNALS

36. Abramson, J.M. (2005) "Respiratory symptoms and lung foundation in older People with Asthma or chronic obstructive pulmonary deserve", **Medica**l- **Journal of Australia** 183, (1). 23-25.
37. Bang ,KM.(2009)."Prevalence of chronic obstructive pulmonary disease in the U.S. working population: an analysis of data from the 1997-2004 National Health Interview Survey", **COPD** 6(5):380-7.
38. Blanc ,P.D et.al.,(2009). "Further exploration of the links between occupational exposure and chronic obstructive pulmonary disease," **Journal of Occupational Environment**, 51(7):804-10.
39. Joshi, J.M.(2008). "Chronic obstructive pulmonary disease: knowing what we mean, meaning what we say" **Indian Journal of Chest Disease**."50(1):89-95.
40. Sur D, Mukhopadhyay, S.P.(2007). "A study on smoking habits among slum dwellers and the impact on health and economics", **Journal of Indian Medicine**, 105(9):492-6, 498.
41. Gothi ,D., Joshi, J.M.(2007). "Clinical profile of diseases causing chronic airflow limitation in a tertiary care centre in India," **Journal of Association of Physicians**, India, 55:551-5.

42. Jindal, S.K.(2006). "Emergence of chronic obstructive pulmonary disease as an epidemic in India," **Indian Journal of Medicine**, 124(6):619-30.
43. Hansen, J.G et.al.,(2009). "Prevalence of chronic obstructive pulmonary disease--secondary publication," **COPD**, 171(41):2986-8.
44. Bourbeau ,J et.al.,(2006)."Reduction of hospital utilization in patients with chronic obstructive pulmonary disease: a disease-specific self-management intervention,"**Arch Intern Medicine,** 163(5):585.
45. Menezes, A.M et.al.,(2009). "Prevalence of smoking and incidence of initiation in the Latin American adult population: the PLATINO study," **Public Health,** 22;9:151.
46. Bahadori, K.(2009) ."Risk factors and outcomes associated with chronic obstructive pulmonary disease exacerbations requiring hospitalization," **Canadian Respiratory Journal**, 16(4):43-9.
47. Miravitlles ,M.(2009). "Prevalence of COPD in Spain: impact of undiagnosed COPD on quality of life and daily life activities,"**Thorax,**64(10):863-8.

48. Bernnett et.al.,(2004). "Nurses key to National COPD guidance ",**Nursing times,** 6(10) 15.

49. Bolton, C.E. Ionescu, and Edwards,P.H et.al (2005). "Chronic obstructive pulmonary disease. Non Pharmacological approaches".**British Journal of Nursing** 14 (1) 14-18.

50. Brooks Dina et.al., (2004). "The devt of helpline for chronic obstructive pulmonary disease ,"**Patient Education and counsellling**.54. 329-336.

51. Celli et.al.,(2005). "future perspectives in COPD ,"**Respiratory medicine**, 99,(9) 341-348.

52. Chen, R.Dales et.al (2005). "Changing age pattern of hospitalization risk of COPD in men and women in Canada ,"**Age and aging** 34 (4) 373-377.

53. Hulbert et.al (2003). "Interpreting COPD prevalence estimates**,"** **Chest,** (123) 1684-1692.

54. Ambrosino et.al (2005). "Treatment for COPD," **Respiratory medicine,** 99 (9) 528-540.

55. Jindal ,K.S and gupta, D. (2004). "guidelines for management of chronic obstructive pulmonary disease in India", **Indian journal of chest disease and Allied sciences**, 46, 137-153.

56. Jindal, S.K and Agarwal, A.N. (2001). "A review of population studies from India to estimate national burden of COPD and its association with smoking," **Indian journal of chest diseases and allied sciences**,43 (3) 139-147.

57. John O Reilly.(2004). "Half of COPD patients fail to report flare up" **Nursing Times ,**100 (37) 9 26-27.

58. Jones et.al., (2004). " Qualitative study of compliance with medication and lifestyle modification in chronic obstructive pulmonary disease", **Primary care respiratory journal**, 13(5), 149-154.

59. Murmphy. (2005). "Extending A Home from hospital care programme for COPD exacerbation to include pulmonary rehabilitation," **Respiratory medicine ,**99 1297-1302.

60. Murray, C.J and Lopez, A.D., (1999)." Mortality by causes for Eight regions of the world, Global Burden of Disease study" **Lancet**, 349 (1061)1269-1276.

61. Don ell, D.E and bourboan ,J et.al (2003)" Canadian thoracic recommendations for management of chronic obstructive pulmonary disease 2003," **Canadian respiratory journal,** (10) 11-A- 65 A.

62. Rao,A.B and Gray,A. (2003). "Breathlessness in hospitalized adult patients," **Post graduate medical Journal,** 79 681-685

63. Ray.D.Abel.R. and selvaraj ,K.G.(1995). "A 5 year perspective epidemiological study of chronic obstructive pulmonary disease is rural south India". **Indian Journal of medical research ,**101: 238-244**.**

64. Roche.N and G.Huchon, G. (2004). "Epidemiology of chronic obstructive pulmonary disease," **Review practicals** 54 (13) 1408-13.

65. Rutschmann .J et.al (2004). "Knowledge of guidelines for the management of COPD. A survey of primary care physician, "**Respiratory medicine** 98 (3) -932-937.

66. Burgel, P.R.(2009). "Cough and sputum production are associated with frequent exacerbations and hospitalizations in COPD subjects,"**Chest,**135(4):975-82.

67. Hill, K.(2009). "Disease-specific education in the primary care setting increases the knowledge of people with chronic obstructive pulmonary disease: A randomized controlled trial,"**patient Education Counseling**, 58,320-322.

68. Sedeno, M.F et.al.,(2009). "A self-management education program including an action plan for acute COPD exacerbations**,"** **COPD,** 6(5):352-8.

69. Harris ,M. and Smith, B.J .(2008).”Patient education programs--can they improve outcomes in COPD**,” International Journal of Chronic Obstructive Pulmonary Disease,** 3(1):109-12.

70. Carré, P.C et.al.,(2008). “The effect of an information leaflet upon knowledge and awareness of COPD in potential sufferers. A randomized controlled study,” **Respiration**.76(1):53-60.

71. Bourbeau, J et.al.,(2006). “Economic benefits of self-management education in COPD,” **Chest.** 130(6):1704-11.

72. Vestbo, J et.al., (2009). “Adherence to inhaled therapy, mortality and hospital admission in COPD,”**T horax** 64(11):939-43.

73. Sullivan,D. and Todd,A. L. (2000) “The economic burden of COPD”, **chest.**59(2)66-67.

74. Johannsen, J.M. (1994). “chronic obstructive pulmonary Disease current comprehensive care,” **Nurse practitioner**, 19, N-3, 20.

75. Kathryn, L.A. (1995). “Effect of COPD on quality of life,”**Research in Nursing and Health:** 6,547-554**.**

76. Larger son ,J. (1974). “Nursing care of patients with COPD,” **Nursing Clinics in North America** 9 (1),165-179.

77. Panola ,B.W andTrisch V.S.(1989). “trends in COPD mobility and mortality in United States,” **American review of respiratory disease ,120:739-744.**

Bulletin, Manuals. News Paper and News letter

78. Breathe easy, "A guide to living with COPD "**Canadian lung Association,** (2004).
79. "Management of COPD, Coping strategies control your breathing"**, Canadian lung association pulmonnaire,** (2004).
80. "Standards for the Diagnosis and management of Patients with chronic obstructive pulmonary Disease", **American Thoracic society,(2005).**
81. Dinesh Varne .M. " Watch out for much ignored silent killer**."** **The Hindu** 13th Nov (2005).
82. Esson , M. K. "the millennium development goals and tobacco control". **An opportunity for global partnership, world health organization**(2000)**.**
83. MadhuGopal. "quit smoking for your own sake" .**The Hindu**, 31st may 2004.
84. Murphy M Elaine. "promoting Healthy Behavior ", **Health Bulletin,**(2005).
85. Narasimhan, R "say "No "to smoking", "The Hindu 29th May2003.
86. Palaniappan ,M. "Joy stick may Take you to the fag and fast", **The Hindu** 17th Nov 2005.

87. The Asia Pacific COPD round table group, "Global initiative for chronic obstructive pulmonary disease,". **An Asia pacific perspective Respirology.** (2005).

UNPUBLISHED THESIS

88. **Kanniammal. (2000).** "evaluate the effectiveness of breathing exercises on pulmonary function and quality of life of patients with COPD". Unpublished master thesis, DR.M.G.R .Medical university,Tamilnadu**.**

89. **Shaji,M. (2009).** "to assess the effectiveness of video assisted teaching module on self care management of COPD." Unpublished master thesis,Rajiv Gandhi university, Karnataka.

NET REFERENCE

90. www. Copd.about.com

91. www.nhibi.nih.gov

92. www.pulmonology channel.com

93. www.emedicinehealth.com

94. www.whoint.search.com

95. www.chestjournal.org

96. www.nibi.nih.gov

97. www.oxfordjournal.org

98. www.biomedexperts.com

99. www.nursingcenter.com

100. www.nurse.com

101. www.guideline.com

102. www.ersnet.org

103. www.copdconference.com

104. www.nursingtimes.net

105. www.copdnews.com

106. www.informaworld.com

107. www.nursingpractice.com

108. www.education.com

109. www.educationforhealth.org.uk

APPENDIX- -F

VIDEO ASSISTED TEACHING ON

SELF CARE MANAGEMENT OF COPD

Topic	:	Self care management in COPD
Group	:	COPD patients admitted in Perundurai medical college hospital.
Place	:	Perundurai medical college hospital
Instructor	:	S. Angelin mary sheela
Medium of instruction	:	Tamil
Method of teaching	:	Lecture cum demonstration
Teaching aids	:	Video assisted teaching module

GENERAL OBJECTIVE :-

COPD patient will gain knowledge and understanding on the self care management of COPD and develop desirable attitude to apply this knowledge in their day today life to prevent complication and to improve their quality of life.

SPECIFIC OBJECTIVE :-

At the end of the teaching patients will be able to

- define COPD and explain the diseases under COPD
- enumerate the risk factors for development of COPD
- list out the clinical features of COPD
- enlist the components of self care management
- explain the purposes of breathing exercises
- describe the purposes of pursed lip breathing exercises
- demonstrate the pursed lip breathing exercises

- describe the purposes of diaphragmatic breathing exercise
- demonstrate the procedure of diaphragmatic breathing exercise
- explain the purposes of coughing exercise
- demonstrate the coughing technique
- describe in detail about aerosol nebulization therapy
- describe the dietary management of COPD
- describe the importance of medication
- discuss about rest and sleep
- describe the complications of poor self care management
- discuss the preventive measures
- explain the importance of follow up

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		INTRODUCTION :- Disease is an inevitable phenomenon in every human life and many factors influence the health. The non – communicable diseases are a great burden to the nations. It has increased the mortality and morbidity of the population. This heavy increase is due to westernization and urbanization, so much of external factors like smoke, allergen, pollution, dust, and heredity and aging process causes diseases of the lungs.. Industrialization has resulted in drastic changes in the environment and life style of the people. COPD-chronic obstructive pulmonary diseases are more prevalent due to the air pollution from industries, increasing number of motor vehicles and occupational hazards and the living environment. When the problem interferes with the ability to breathe or with diffusion of gas across the lung membranes, the homeostasis of the whole body is affected.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		Definition :- COPD is a preventable and treatable disease that is characterized by airflow limitation, which is usually progressive, that is not fully reversible. It is a progressive obstruction of airways. **(Lewis et al. 2007)** **Diseases under COPD** :- It includes diseases that cause airflow limitation or obstruction – emphysema and chronic bronchitis. (**Lewis et al. 2007)** **Emphysema :-** An abnormal permanent enlargement of the air spaces beyond the terminal bronchioles, with destruction of the walls of the alveoli and impaired O_2 and CO_2 gas exchange resulting from destruction of the walls of the over distended alveoli.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Enumerate the risk factors for developme nt of COPD	**Chronic bronchitis :-** It is a disease of the airways is defined as the presence of cough and sputum production for at least 3 months in each of two consequent years. Chronic bronchitis occurs when the lining of the bronchial tree becomes inflamed and produces excess mucous that clogs the airway. **Risk factors ;-** • Cigarette smoking – Cigarette contains nicotine which causes irritating effect in the respiratory tract.It leads to reduced ciliary activity and hyperplasia of the cells in bronchial tree. • Occupational dust and chemicals—prolonged exposure to dusts,vapors, fumes in the work place. • Environmental tobacco smoke- exposure of smokers to Cigarette smoke . it is associated with respiratory symptoms, lower respiratory infections.	 	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	List out the clinical features of COPD	• Indoor and outdoor air pollution –fossil fuels used for indoor heating and cooking are high risk factor for COPD • Low socio – economic status-poor ventilation and overcrowding leads to respiratory infections. • Recurrent chest infections-infections like pneumonia causes decreased resistance making bronchioles and alveoli susceptible for injury. • Heredity • Aging-as people age there is gradual loss of the elastic recoil of the lung leading to conditions like emphysema.	  	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Enlist the components of home care management	**Clinical features :-** • Breathlessness on exertion • Chronic cough • Regular production of mucoid sputum • Wheezing, chest tightness • Loss of appetite • Weight loss **Components of self care management** • Breathing exercises - Pursed lip breathing exercises - Diaphragmatic breathing exercises • Coughing techniques • Aerosol nebulization therapy • Dietary management • Medications • Rest and sleep • Complications due to poor self care management	 	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Preventive measures - Smoking cessation - Control of environmental factors • Follow up		Lecture Cum Discussion
	Explain the purposes of breathing exercises.	**Breathing exercises :-** It is a technique of guided breathing exercise and training used to enhance breathing and improve the health. It helps to keep the airways stay open longer as you breathe in and as you breath out.It helps in decreasing breathing difficulty,slowing the respiratory rate and improving oxygenation. **Purposes :-** • To improve chest expansion		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• To obtain better relaxation of the thorax. • To enlarge alveoli and air will enter the expanded parts by the different muscle actions and similarly that air will be expelled on the relaxation phase. • To facilitate respiratory function by increasing lung expansion and improving oxygenation. • To prevent alveolar collapse. • To encourage expectoration of mucus and secretions that accumulates in the airways thereby improving the bronchial hygiene. • Assist the patient during rest and activity (e.g)., lifting, walking, stair climbing) by decreasing dyspnea. **Procedure** A - To begin, position yourself on your back with knees bent place one hand on abdomen and one hand on the chest.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		B - Relax your abdominal muscles now inhale through the nose and feel the abdomen expand and the chest hand should move very little. C - Exhale through the mouth while on pursing your lips. While exhaling tighten the abdominal muscles. **Pursed lip breathing** :- It is one of the simplest way to control shortness of breath and slows the pace of breathing and makes each breath effective. **Purposes of pursed lip breathing :-** • To prolong exhalation and their by prevent bronchiolar collapse and air trapping. • Helps to control the rate and depth of respiration. • Enabling to gain control of dyspnea and reduce feelings of panic.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Promotes relaxation. • Relieves shortness of breath. • Improves ventilation • Keeps the airways – open longer. **TECHNIQUE** This techniques is used during the difficult part of activity such as bending, lifting or stair climbing. • Instruct the patient to assume a comfortable position • Relax the neck and shoulder muscles. • Breathe in (inhale) slowly and deeply through nose (counting upto 3) and keep mouth closed. • Exhale slowly through mouth with lips "pursed" (lips in a whistling position) (Time counting upto 7)		Lecture Cum Discussion
	Demonstrate the pursed lip breathing for COPD			

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Explain the exhalation should be twice as long as inhalation because excessive resistance may increase the work of breathing. • Should be practiced for 8 to 10 repetitions, three or four times a day. **Diaphragmatic breathing exercise :-** Diaphragmatic breathing exercise focuses on diaphragm . It helps to expand the lungs. Diaphragm, the principle muscle of respiration is using instead of the accessory muscles of the chest. **Purposes of diaphragmatic breathing exercises :** • Helps to achieve maximum inhalation. • Slows the respiratory rate.		
	Describe the purposes of diaphragmatic breathing exercises			

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Demonstrate the procedure of diaphragmatic breathing exercise.	**Diaphragmatic breathing :** • Advice the patient in a fowler's or sitting position, it allows increase diaphragmatic exertion secondary to downward shift of internal organs from gravity. • Instruct the client to place the palm of the hands over the area of diaphragm with middle fingers touching along the lower part of the mid chest. It allows client to feel movement of diaphragm, indicating deep breath. • Ask client to inhale slowly and deeply through the nose, feeling middle fingers separate because of chest expansion. • Holds breath for 2 or 3 seconds, it allows lungs to expand slowly. • Have client exhale slowly through mouth.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Exhalation should take 3 times longer than inhalation. • The patient should perform this technique for 15 to 20 minutes, 4 to 5 times a day until this pattern of breathing becomes familiar. **Coughing techniques :-** **Purposes :-** • To increase the efficiency in the clearance of bronchial secretions, without causing or increasing bronchospasm. • To mobilize secretions from the more peripheral airways towards the proximal airways. • Slow airflow is more helpful in expelling secretions • To conserve energy, reduce fatigue, facilitate removal of secretions.		
	Explain the purposes of coughing techniques.			

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Demonstrate the coughing techniques for COPD	**Low flow (Huff) cough :-** • Advise the patient to sit in upright and flexed forward position. • Shoulders relaxed, knees flexed, and forearms supported by a pillow, or feet on the floor, • Instruct the patient to take a deep (diaphragmatic breathing) breathing and low pressure cough. • Then to breath out rapidly and powerfully making a strong 'sighing' sound, through mouth by relaxed lips. • Again instruct the client to take a deep breath in and then make a long, single cough during expiration. • The sound at the end of this effort should be the "huffing" sound, it allows to mobilize the retained secretions. • Advise the patient to take rest after 3 – 4 cough attempts, it protects the patient from overtiring.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Describe the detail about the aerosol nebulization therapy.	Aerosol nebulization therapy :-Medications for COPD patients are most often delivered through metered dose inhaler and devices that deliver a suspension of liquid in a gas called nebulizer. Nebulizers are usually powered by compressed air or oxygen generator. An inhaler is a devise for the administration of a medication through inhalation. Pressurized metered dose inhalers (pMDIs) are the most commonly used inhaler. These are small, convenient, easy to carry and can be used to deliver a wide range of medications in a fine mist to the lungs. **Purposes of Aerosol nebulization therapy :-** Some of the medications used for aerosol therapy are bronchodilators. This means that they work by relaxing the muscle surrounding the airway passages by dilating the airways there by allowing person to breathe easier. It results in improved ability to cough.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		One of the major advantages of aerosol therapy is that medications is delivered directly to the 'lungs", there by having fewer side effects on the body and relieves symptoms effectively bronchospasm. **TO SAFELY USE AEROSOL TREATMENTS FOLLOW THE STEPS LISTED HERE:** **A. To give a treatment :** 1 Measure the right medication dose as shown on your prescription label or as instructed. Add diluents as prescribed. 2. Sit upright in a chair or in a slight recline. 3. Place the mouthpiece between your teeth, close your mouth and breathe in slowly through your mouth. Take breaths deeper than normal.		

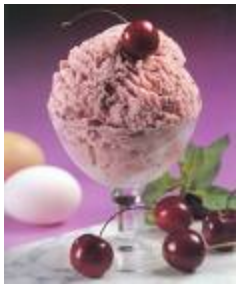
Time	Specific objective	Content	A.V. Aids	Teachers Activity
		4. Hold your breath for as long as you comfortably can before you breathe out. 5 . Breathe out slowly in a relaxed way. 6. You should pause after about 5 minutes and try to cough. This will help to move any plugged up mucous out of your airways. You should turn the nebulizer off when you rest so you don't waste your medication. 7. Keep breathing this way until all your liquid medication is used. This will be done when the nebulizer is no longer making a visible mist. **Cleaning :-** • Wash each part of the nebulizer kit after each treatment in hot, soapy water. Rinse with hot water. Air dry on a clean cloth. • Nebulizer kits may be cleaned in a dishwasher		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Store clean nebulizer kits in a plastic bag when dry.v ·Do not get the inside of the air tubing wet. Only wash the outside of the tubing. • Wipe down the outside of the compressor with a damp cloth. **Purposes of inhalers** • To correct the underlying respiratory disorders responsible for bronchospasm and dilate the airways . • To increases the ability to undertake activities of daily living. • To reduce inflammatory and allergic responses in the upper respiratory tract. **Procedure :-** • Wash hands and dry properly. • Instruct the patient to sit in an upright position Shake the inhaler (5or 6 times), it helps the mixing of drug in the canister.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Demonstrate the procedure of aerosol nebulization therapy.	• Remove the protective cap. • Make sure the metal canister is firmly seated in the plastic case • Hold the inhaler in upright position. • Tilt the head back to 10 – 15 degrees. • Breathe out gently and fully. • Place the mouth piece between the teeth and seal the lips around it. • At the start of inspiration, ask the client to press the metal canister down while inhaling. • Instruct the client to remove the mouth piece from their mouth and then close their lips. • Ask the client to hold the breath and count upto 10 to attain maximum effect of medication. • Breathe out gently and fully through the nose.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Demonstrate the procedure of aerosol nebulization therapy.	• If second dose is required, wait one minute and then repeat the above steps before replacing the cover. • After procedure clean the mouth piece and replace the cap. If any complications, stop the procedure and notify to the physician -cardiac dysrythmias, dizziness, light headedness, tingling and palpitation, oralthrush, paroxysmal bronchospasm **Dietary management :-** • Balanced diet helps to rebuild muscles and recover from illness. • Consume high calorie foods like rice, wheat , raggi,maize, etc. • High protein foods like pulses, legumes, milk, meat, egg, etc. Vegetables like dark green vegetables and leafy vegetables and purple red varieties like beets, radishes ,pineapple and papaya should be consumed	 	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Describe the dietary management for COPD.	• Instruct the client to eat fresh fruits and vegetables because it contains vitamin C and E, it acts as a antioxidants and have a protective effect on lung tissue and beneficial in slowing down the progression of COPD. E.g nuts and seeds, orange, citrus fruit, green leafy vegetables, amla and guava. • Encourage to take fish eg. Salmon, tuna or mackerel, because it contains omega- 3 fatty acids and it protects the lungs as antioxidants • Moderate amount of nuts like cashew, ground nuts, badam, coconut and dates promote muscle built and strengthen the chest muscles. • Fresh vegetables and fruits should be consumed. • Encourage to take 3 liters of water per day unless contraindicated. It helps to loosen the phlegm, mucus or sputum so that they can be more easily dislodged by coughing.	  	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		Foods to avoided Avoid eating gas forming foods like cauliflower, cabbage, dal, potato,peas etc. which bloat the abdomen and make breathing difficulty • Avoid all greasy, fried foods especially those that have been deep fried because they are mucus forming and contribute to inflammation in bronchial wall. • Processed foods and junk foods with additives and artificial ingredients contribute to weakening of immune system. • Avoid foods high in salt, refined sugar soda, raisins and packed salted food items • Minimise dairy products especially milk, cheese and butter and ice creams. • Avoid beverages like coffee, black tea and alcohol.. • Avoid high fat foods, red meat, egg yolks, nuts, ghee should be avoided	 	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Describe the dietary management for COPD.	• Breathing exercises should be avoided for at least 1 hour before and after food. • Patient should take rest for at least 30 minutes before eating. • use medications before eating to minimize discomfort, incase of dyspnea. • Advise the patient to sit in upright position. • Advise oral hygiene. • Eating slowly and chewing foods thoroughly • Breathing evenly while chewing. • Provide small, frequent nutritionally dense meals each day instead of three large ones so that stomach is never extremely full and pushing on the diaphragm. Drinking skimmed or 1% milk helps to reduce mucus productions. • Cold food provides less sense of fullness than hot foods • High calorie, high protein is divided into 4 or 6 meals. Avoid eating refrigerated food, take food and fluids warm.	  	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Describe the importance of medications	**Medication** **Importance of Medication :-** • To reduce or abolish symptoms • To increase the capacity to do exercise • • To reduce the number and severity of exacerbations • To improve overall health • Take the drugs as prescribed • Take the medications one hour before food, if dyspneic, otherwise • after food. **Common COPD medications** : **Bronchodilators** to open your airways. Bronchodilators help reduce your breathing effort. They open up the airways in your lungs to relieve or reduce shortness of breath and wheezing. **Corticosteroids** to reduce the swelling and work over the long		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• term, to reduce cough and inflammation in your airways. • **Antibiotics** if you have an infection When you have COPD, the lungs' natural defence mechanism is lost ,so antibiotics are given. **Medication Safety** 1. Never take medications without prescription 2. Check the medications for expiry date 3. Donot omit any medication **Rest and sleep** :- In chronic obstructive pulmonary disease (COPD, This can be a significant problem, since sleep is especially important when you are dealing with an illness like COPD. Sleep allows your body to repair itself, and not getting enough rest can weaken your immune system.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Discuss about rest and sleep	**Common Causes of Sleep Problems** : **Sleep position:** Since people with COPD may find breathing more difficult when they are lying down, they often sleep in an upright position. But sitting up makes it hard to fall asleep and stay asleep. **Medications:** Some of the medications used to treat COP**D ca**n cause restlessness and insomnia. **Mental health:** People who have COPD are at increased risk of emotional problems, such as depression and anxiety, which often lead to sleep problems. **Sleep-related breathing changes:** When the patient goes to sleep, breathing slows and your respiratory system becomes less responsive to stimuli. and this cause sleep disturbances in people who have COPD.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		Sleep apnea: COPD patients also have sleep apnea, which is when breathing is interrupted during sleep. Sleep apnea can result in loud snoring, frequent awakenings, and severe sleepiness in the daytime. **Heart burn**. The acid reflux in GERD can lead to heartburn and other symptoms, causing to wake up often at night and sleep restlessly. **Steps to improve sleep in COPD. They include :** **Adjust COPD medications:** when on the optimal dosage of bronchodilator therapy, the patients will be able to breathe easier at night while you sleep. Never make changes to medications without first consulting your doctor.		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		keep the room well vetilated. **Treat underlying infections:** If there is a respiratory infection, that is making it difficult to sleep, getting treatment can improve the rest and sleep. **General Tips for Better Sleep** Regardless of your COPD status, here are some tips that may also help you get a good night's sleep. • Reserve your bed for sleeping only. Avoid watching TV, reading, or just lying awake in your bed. • Avoid napping so that you will be sleepy at bedtime. • Get regular exercise, but not in the two hours before bedtime. • Make sure your bedroom is quiet, dark, and cool. • Don't drink caffeine in the five hours before you go to bed.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		Keep a regular sleep schedule, going to bed and waking around the same time each day. • Patient should take rest for at least 30 minutes before eating. • Take rest after exercise. • Sleeping up to 8 hours per day.		Lecture Cum Discussion
	Describe the complication due to poor self care management	**Complications due to poor self care management** Self care is not followed properly the following complications may occur. • Malnutrition • Respiratory infection Respiratory failure • Pneumothroax • Corpulmonale leading to right heart failure		

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Discuss the preventive measures	**PREVENTIVE MEASURES** **Smoking cessation** • Instruct client to accept that smoking is harmful for health. • Make determination to quit smoking . • Remove ash trays and other objects that reminds of smoking. • Adopt healthy life styles such as relaxation, exercise, plenty of oral fluids etc. **Few steps to quit smoking** Keep count of number of cigarettes smoked and its frequency. • Decrease the number of puffs when smoking • Do not inhale deeply b) To deal with triggers when he has an urge to smoke • Try alternatives like chewing gum, toffee, peppermint and cardamom.	 	Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Increase water intake • Breathe deeply and quietly. • Do some other work to engage the mind and keep their mind to off tobacco. • Delay the act of smoking count till 100 and think of pleasant situations. c) Once quit from smoking • Learn to say "No" to tobacco offers from others • Do not take even a single puff. • Try to remain in smoke free areas • Avoid company of smokers and even tobacco chewers. • Make a group people who have quit tobacco – share their experience. • Try alternate ways to deal with mental stress and tension, such as relaxation, deep breathing, listening to music.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Remember their can be some withdrawal symptoms after quitting such as headache, irritability, lack of concentration etc. But bear with them. These are temporary and disappear in a few days. • Do not get disheartened try again. • Seek professional help and medical advise. **Control of environmental factors :-** • Avoidance of smoking in closed environment especially inside the house. • Regular cleaning (dusting and mopping) of the house. • Allowing regular exposure of furniture to the sunlight. • Use of water to suppress dust.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
		• Wearing masks at workplace in areas of dust generation. • Avoiding indoor combustion of domestic fuels like dried dung, crop residue . Avoid smokes and fumes . • Use of smokeless cooking stoves. • Substitution of solid fuels with LPG or electricity • The "kitchen" at home should at least be located outside the living and sleeping areas. • Kitchen should be adequately ventilated by providing "chimneys" or exhaust fans". • Reducing the duration of stay in the kitchen or place of fuel use and by covering nose and mouth with a thin cloth near the source of combustion. • Adequate ventilation in the living rooms. • Advice the client not to go out, when the weather cold and windy.		Lecture Cum Discussion

Time	Specific objective	Content	A.V. Aids	Teachers Activity
	Discuss the importance of follow up Summarize the topic	• If going out, wear a scarf around the mouth to avoid breathing in cold air. Do not bath in cold water. **Follow up** • Visit the physician on proper follow up dates to prevent further complication. • Report the physician of any discomfort to symptoms like change in sputum colour, amount, consistency, more frequent or productive cough, elevated temperature or dyspnea **Summary** The clients those who are suffering COPD have to live their life to be fullest and for the prevention of the progression of their disease to a crippling stage, they have to manage COPD effectively and expeditiously. For that they have to follow self care management properly at home	  	Lecture Cum Discussion

ePz;lfhy Rthr milg;G Nehapd; Raguhkhpg;G

KfTiu :-

kdpj tho;tpy; Neha; vd;gJ jtph;f;f Kbahj xd;W. cly; eyj;jpw;F CWtpistpf;Fk; gy fhuzpfs; kdpjid ghjpf;fpwJ. Njhw;W Neha; my;yhj gpw Neha;fs; ekJ ehl;by; mjpfkhf fhzg;gLfpwJ. mjw;F fhuzk; Nkiyehl;Lf; fyhr;rhuk;> efh;Gwkhf;Fjy; MFk;. njhopw;rhiyfspy; ,Ue;J ntspNaw;wg;gLk; Gif> thfdq;fshy; Vw;gLk; Gif. kf;fs; neUf;fkhf trpj;jy; Mfpatw;why; Vw;g;gLk; khR EiuaPuy; Neha;fis Vw;gLj;JfpwJ. mjdhy; EiuaPuypy; fhw;Wigfspy; fhw;W Gfh tz;zk; milg;G Vw;gl;L Rthrpf;f ,ayhky; NghfpwJ. EiyaPuypd; Rthr ghpkhw;wj;jpid jLj;J clypd; rkr;rPh; epiyia khWgLj;JfpwJ.

tiuaiw :-

ePz;lfhy Rthr milg;G Neha; vd;gJ jLf;f $ba> Fzg;gLj;jf;$ba kw;Wk; Kw;wpYk; khw;wj;jfhj xUtif NehahFk;. ,J EiuaPuypd; Rthr Foha;fis RUf;fp Rthr ghpkhw;wj;ij njhlh;r;rpahf Fiwf;fpwJ.

fhuzpfs; :

Gifgpbj;jy; : rpfnul; gpbg;gjdhy; mjpy; fye;Js;s epNfhl;bd; vd;Dk; er;Rg; nghUs; Rthrg; ghijapy; myh;r;rpia Vw;gLj;JfpwJ.

JhR : ek;ik Rw;wpAs;s khRgl;l JhR > Miyfspy; ,Ue;J ntspg;gLk; er;Rg;Gif. gzpGhpAk; ,lj;jpYs;s Ez;zpa jhJ Jfs;fs; Mfpatw;why; %r;R jpzwy; Vw;g;gLfpwJ.

Rw;Wr; #oy; : ehk; trpf;Fk; ,lj;jpy; rikay; miwapy; > tpwF > kz;nzz;iz Mfpatw;why; Vw;gLk; Gif fhw;wpy; Vw;gLk; mRj;jk; Mfpatw;why; Rthr kz;lyk; ghjpg;gilfpwJ.

,l neUf;fk; :-

mjpf neUf;fkhd Fbirfspy; fhw;Nwhl;lk; Fiwthf cs;s ,lq;fspy; trpg;gth;fSf;F> kf;fs; neUf;fk; mjpfkhf cs;s ,lq;fspy; fhw;W khRgLtjhy; Rthr Neha; Vw;gltha;g;Gs;sJ.

guk;giu :-

FLk;gj;jpy; Fwpg;ghf ngw;Nwhh;fSf;F Rthr gpur;rid ,Ue;jhy; mJ gpd; re;jjpapdiu ghjpf;f tha;g;Gs;sJ.

KJik :-

KJik fhuzkhf Rthr cWg;Gfs; jsh;tiltjhy; %r;Rj; jpzwy; Vw;gl tha;g;Gs;sJ.

mwpFwpfs; :-

- %r;rpid ntsptpLk; NghJ %r;Rjpzwy;> mjpfkha; Ntiy nra;Ak; NghJ.
- rspAld; $ba ,Uky;
- neQ;rpUf;fk; > %r;rpid ntsptpLk; NghJ tprpy; Nghd;w rj;jk;.
- grpapd;ik

- vilFiwjy;.

Nghd;w Rthr kz;ly gpur;ridfspypUe;J tpLgl Nkw;nfhs;s Ntz;ba Raguhkhpg;G Kiwfs; rpy > mit:

Raguhkhpg;G Kiwfs; :-

- Rthrj;ij gioa epiyf;F nfhz;L tUk; gapw;rpfs;
  - Ftpe;j cjL Rthrg;gapw;rp
  - cjpu tpohd Rthrg;gapw;rp.
- ,Uky; gapw;rp
- nraw;if Rthrg;gapw;rp
- czTf;fl;Lg;ghL
- Xa;T kw;Wk; cwf;fk;.
- kUe;Jfs;
- rhpahd Raguhkhpg;G ,y;yhjjhy; Vw;gLk; tpisTfs;
- jLg;G Kiwfs;
  - Gif gpbj;jiy jtph;j;jy;
  - JhRf; fl;Lg;ghL
- njhlh; rpfpr;ir

Rthrj;ij gioa epiyf;F nfhz;L tUk; gapw;rpfs;

,g;gapw;rp %r;rj;jpwid Kiwg;gLj;jp Rthrj;ij Nkk;gLj;JfpwJ. ,J %r;rFohia tphptila nra;J Nehahspfs; %r;R ntspapLifapYk; %r;R cs;spOj;jiyAk; ed;F Kiwg;gLj;JfpwJ. %r;Rj;jpzwiy Fiwj;J > Rthrj;ij rPh;gLj;JfpwJ.

gad;fs; :-

1. khh;G tphptiltij Nkk;gLj;j cjTfpwJ.
2. khh;G $l;bw;F Kiwahd Xa;T nfhLf;f cjTfpwJ.
3. EiuaPuiy tphptilar; nra;tjd; %yk; mjd; gzpfis Nkk;gLj;j cjTfpwJ.
4. EiuaPuypd; Ez;Foy;fs; rpijtiltij jLf;fpwJ.
5. EiuaPuypd; Ez; Fohapd; ,Uf;Fk; Nfhisia ntspNaw;Wtjd; %yk; EiuaPuiy Rj;jkhf itj;Jf; nfhs;s cjTfpwJ.

nra;Kiw :-

- ❖ Neuhf gLj;J fhy;fis klf;fpathW gLj;Jf; nfhs;sTk;. xU ifia khh;gpd; NkYk; kw;nwhU ifia tap;w;wpd; NkYk; itj;Jf; nfhs;sTk;.
- ❖ tapw;W jirfis jsh;j;jp %f;fpd; topahf Rthrpf;fTk;. mt;thW nra;Ak; nghOJ khh;G kw;Wk; tapw;Wg; gFjp tphptiltij iffspd; mirTfspdhy; czu KbAk;.
- ❖ gpd;G Ftpe;j cjLfspdhy; %r;ir ntspNaw;wTk;.

Ftpe;j cjL Rthrg;gapw;rp :-

- ❖ ,g;gapw;rp %r;Rf;fhw;W gw;whf;Fiw Fiwj;J Rthrj;ij xOq;FgLj;JfpwJ.
- ❖ %r;RntspapLjiy mjpfg;gLj;Jtjd; %yk; Ez;Foy;fspd; rpijitj; jLf;fpwJ.
- ❖ %r;R vz;zpf;ifAk;> Moj;ijAk; fl;Lg;gLj;j cjTfpwJ.
- ❖ %r;Rj; jpzwiy Fiwf;f cjTfpwJ.
- ❖ EiuaPuYf;F fhw;Nwhl;lj;ij mjpfg;gLj;JfpwJ.

nra;Kiw :-

- ,g;gapw;rp fbdkhf ,aq;Fk; NghJ mjhtJ FdpAk; NghJ fbdkhf Jhf;Fk; NghJ kw;Wk; gbfl;L VWk; NghJ Nkw;nfhs;syhk;.
- ehw;fhypapd; Neuhf mkuTk;
- fOj;J kw;Wk; Njhs;gl;il jirfis ,sfpa epiyapy; itf;fTk;.
- tha;%bf;nfhz;L %f;fpd; topahf %r;rpid itf;f Ntz;Lk;.
- gpd;G %r;rpid tha; topahf mjhtJ cjLfis tprpybg;gJ Nghy; cjLfis Ftpj;Jf; nfhz;L nkJthfTk;> KOikahfTk; ntspapl Ntz;Lk;.
- %r;ir ntspapLk; tpdhbfs; cs;spOf;Fk; Neuj;ij tpl ,uz;L klq;F mjpfkhf ,Uf;f NTz;Lk;.
- Ftpe;j cjL Rthrg; gapw;rp xU ehisf;F %d;W my;yJ ehd;F Kiw nra;a Ntz;Lk;.
- Xt;nthU KiwAk; Fiwe;jJ 10 jlitahtJ gapw;rp nra;a Ntz;Lk;.

cjutpjhz Rthrg; gapw;rp :

cjutpjhdk; vd;gJ Rthrj;jpw;F gad;gLk; Kf;fpakhd jir MFk;. ,g;gapw;rp EiuaPuy; tphptila cjTfpwJ.

cjutpjhz Rthrg;gapw;rpapd; gad;fs;:

- gpd;G ,U iffis khh;gpd; fPo;gFjpapy; eLtpuy;fs; ,uz;Lk; njhLkhW itj;Jf; nfhs;sTk;.
- %f;fpd; topahf nkJthf kw;Wk; Mokhd %r;R cs;Ns vLf;Fk; NghJ khh;G tphptiltjhy; eLtpuy;fs; tpyFk;.
- gpd;G ,uz;L %d;W tpdhbfs; %r;ir cs;Ns epWj;jp itf;f Ntz;Lk;.

- gpwF tha;topahf %r;ir nkJthf ntspapl Ntz;Lk;.
- %r;R ntspapL;k; Neuk; cs;spOf;Fk; Neuj;ij tpl %d;W klq;F mjpfkhf ,Uf;f Ntz;Lk;.
- ,e;j gapw;rp xU ehisf;F ehd;F my;yJ Ie;J Kiw nra;a Ntz;Lk;. Xt;nthU gapw;rpAk; Fiwe;jJ gjpidj;J Kjy; ,UgJ epkplk; tiu nra;a Ntz;Lk;.

,Uky; gapw;rp :-

,Uky; xU tifahd jw;fhg;G Kiw ,UKk; NghJ EiuaPuypYs;s fpUkpfs; kw;Wk; Jhrpfs; ntspNa te;JtpLk;. ePz;l fhy Rthr milg;G Neha; cs;sth;fSf;F Mokhf cs;spUe;J gpzf;F ,Uky; gapw;rpia nra;a Ntz;Lk;.

gpzf;F ,Uky; gapw;rp vd;gJ Fiwe;j mOj;jj;jpd; %yk; ,Ukiy cz;lhf;FTJ. ,e;j gapw;rpapd; %yk; %r;R Foypy; cs;s Nfhisfisj; %r;Rf;Fohapd; nghJthd gFjpf;F te;J ntspNaw;w cjTfpwJ.

,Uky; gapw;rp nra;a Ntz;ba topKiwfs; :-

- epkph;e;j epiyapy; cl;fhu Ntz;Lk;. Njhs;gl;ilia vspjhf;fp nfhs;s Ntz;Lk;.
- jiiyaiz cjtp nfhz;L Koq;iffis jsh;j;jp itj;Jf; nfhs;s Ntz;Lk; kw;Wk; fhy;fis epiyahf itj;Jf; nfhs;sTk;.
- %f;fpd; topahf Mokhd Rthrj;ij vLf;f Ntz;Lk;. mjd; gpwF thapd; topNa rj;jj;NjhL $ba fhw;wpid Ntfkhf kw;Wk; mjpf rf;jpNahL ntspNa tpl Ntz;Lk. kWgbAk; %f;fpd; topahf Mokhd Rthrj;ij cs;Ns ,Oj;J

mbapypUe;J fhw;iw CJtJ Nghy; ,Uk Ntz;L;k;. ,J Nfhisia NkYk; fPOkhf %r;Rf; Foypd; ntspg;gFjpf;F nfhz;L nry;fpwJ. Xt;nthU Kiw gapw;rp Nkw;nfhs;Sk; NghJ Ie;J my;yJ MW Kiw nra;a Ntz;Lk;. gpd;G Xa;T vLf;f Ntz;Lk;. xU ehisf;F %d;W my;yJ ehd;F Kiw ,g;gapw;rp nra;a Ntz;Lk;.

nraw;if Rthr kUj;Jt rpfpr;ir :-

nraw;if Rthr kUj;Jt rpfpr;ir vd;gJ Rthrg; ghijia tphptilar; nra;Ak; kUe;jpid mOj;jj;jpd; %yk; mjhtJ rpwpJrpwpjhf Rthrg;ghijapy; kUe;jpid thAthf cs;Ns nrYj;JfpwJ.

,d;N`yh; vd;gJ ,k;kUe;jpid thAthfTk;> MtpahfTk; cs;slf;fp itj;Jf; nfhs;Sk; xU rpwpa fUtpahFk;.

nraw;if Rthr kUj;Jt rpfpr;irapd; gad;fs; :

Nky;Rthrf; Fohapy; Vw;gLk; Neha;njhw;iw Fiwf;f gad;gLfpwJ.

jplf;Nfhior; Rug;Gfis jputkhf;fp vspa Kiwapy; ntspNaw;w cjTfpwJ.

Rthrf; Fohia tphptila nra;fpwJ. EiuaPuypd; nray;jpwid mjpfhpf;f gad;gLfpwJ. jpdrhp Ntiyfis RWRWg;ghf ,af;Ftjw;F cjTfpwJ. ,jdhy; thA gw;whf;Fiwia rhp nra;fpwJ.

nraw;if Rthr kUj;Jt rpfpr;ir:-

- Neuhf ,Uf;ifapy; mku Ntz;Lk;. kUj;Jthpd; MNyhridg;gb rhpahd mstpy; kUe;jpid NghLk; ,lj;jpy; NghlTk;.

- fUtpia ,af;Fk; NghJ kUe;J Mtpahfp cs;Ns nry;fpwJ.
- tha; itf;Fk; gFjpia rhpahf itj;J thia ed;F %bf;nfhs;s Ntz;Lk;.
- tha; topahf Mokhf %r;ir cs;spOf;f Ntz;Lk;. rpwpJ tpdhbfSf;F gpwF %f;fpd; topahf Rthrj;ij ntspNaw;w Ntz;Lk;.
- ,t;thW nra;tjdhy; Rthrf; Foha; tphptilfpwJ. kw;Wk; Nfhisia ntspNaw;w cjTfpwJ.

guhkhpg;G :-

neGiyrhpd; tha;itf;Fk;> gFjp kw;Wk; gpsh];bf; Fohia Nrhg;gpdhy; ed;whfj; fOt Ntz;Lk;.

gpd;dh; cyh;j;jp fhw;W Gfhj ciwapy; Nghl;L itf;f Ntz;Lk;.

,d;N`yh; cgNahfpf;fk; Kiw :-

- iffis Nrhg;gpl;L fOtp gpd;dh; cyh;j;jTk;
- ehw;fhypapy; Neuhf mkuTk;
- kUe;Js;s cNyhf FLitia Ie;J my;yJ MW Kiw ed;whf FYf;fTk;.
- JhR Gfhky; jLf;Fk; Fg;gpia mfw;wTk;.
- cNyhf FLitapy; gpsh];bf; FLit ed;whf nghUe;jpAs;sjh vd;W rhpghh;f;fTk; .
- ,d;N`yiu Neuhd epiyapy; Kiwahf gpbf;fTk;. 10 Kjy; 15 bfphp Nfhzj;jpy; jiyia cah;j;jTk;.
- Rthrj;ij nkJthfTk; kw;Wk; KOikahfTk; ntspapl Ntz;Lk;.
- %r;rpid cs;spSf;f njhlq;Fk; nghOJ FLitia ed;whf fPo; ,Oj;J mjd; gpd; %r;rpid cs;spOf;f Ntz;Lk;.

- ,d;N`yiu thapypUe;J ntspNa vLj;jgpd; thapid ed;whf %bf; nfhs;s Ntz;Lk;.
- 10 tpdhbfs; %r;rpid cs;Ns mlf;fp itf;f Ntz;Lk;. mjhtJ iftpuy;fspy;; xd;wpypUe;J 10 tiu vz;z Ntz;Lk;.
- gpwF %f;fpd; topahf %r;R tpl Ntz;Lk;. NkYk; kUe;J Njitg;gl;lhy; xU epkplk; fopj;J Nkw;$wpa gbepiyfis gpd;gw;w Ntz;Lk;.
- rpfpr;ir Nkw;nfhz;l gpd; tha;itf;Fk; gFjpia Rj;jk; nra;J JhR Gfhky; Fg;gpisf; nfhz;L %l Ntz;Lk;. filrpahf thia nfhg;gspf;f Ntz;Lk;;.
- VNjDk; tpisT Vw;gl;lhy; mjhtJ fpWfpWg;G> Nyrhd jiytyp> glglg;G> tha;Gz;> %r;Rf;Fohapy; ghjpg;G ,Uf;Fk; NghJ kUe;J tiu mZf Ntz;Lk;.

,d;N`yhpd; guhkhpg;G :-

- cNyhf Ftisia L tbtpyhd gpsh];bf; FLitapypUe;J mfw;w NTz;Lk;.
- JhR Gfhky; jLf;Fk; Fg;gp kw;Wk; L tbtpyhd gpsh];bf; FLit Mfpatw;iw ntJntJg;ghd ePhpdhy; ed;whf fOt Ntz;Lk;.
- gpd;dh; cyh;j;jp mLj;j cgNahfj;jpw;fhf jahu; epiyapy; itf;f Ntz;Lk;.
- xU Ntis kUj;Jth; njhlh;e;J ,d;N`yh; vOjp nfhLj;jpUg;gpd; cly;epiy ed;whf ,Ue;jhYk; njhlh;e;J rpfpr;ir Nkw;nfhs;s Ntz;Lk;.

czTf;fl;Lg;ghL:-

- rhpahd czT fl;Lg;ghl;bd; %yk; ePz;lfhy Rthr milg;G Neha; njhw;W Mfhky; jLf;f KbAk;.
- ePz;lfhy Rthr milg;G Neha; cs;sth;fSf;F vilFiwahky; ,Uf;f kw;Wk; rtis Neha; Vw;glhky; ,Uf;f czT fl;Lg;ghL kpfTk; mtrpak;.
- mjpf fNyhhp mjhtJ nray;jpwid mjpfhpf;Fk; czT tiffis cl;nfhs;s Ntz;Lk;. mjhtJ mhprp Nfo;tuF> Nrhsk;> NfhJik> fk;G > ntz;nza; Rthrpg;gjw;F Njitahd rf;jpiaAk; nray;jpwidAk; mjpfhpf;f cjTfpwJ.
- Guj rj;Js;s czT nghUl;fs; ghrpg;gUg;G> cSj;jk;gUg;G> fliyg;gUg;G> kw;Wk; gapW itfshd gPd;]; nfhl;il> jl;lg;gapW> gl;lhzp> Rz;ly;> Kl;il> ,iwr;rp> <uy; kw;Wk; Mfpatw;iw cl;nfhs;s Ntz;Lk;.
- nfhl;il tiffs; mjhtJ Ke;jphp tUg;G> Njq;fha;> epyf;fliy> ghjhk;gUg;G> Nghpr;rk;gok;> EiuaPuy;fspd; jir gFjpfspd; tssh;r;rpiaAk; mjd; gzpfisAk; Nkk;gLj;j gad;gLfpwJ.

fha;fwpfs; kw;Wk; goq;fs; :-

- fha;fwpfs; ntz;ilf;fha;> KUq;if;fha;> ghfw;fha;> nfhj;jtuq;fha;> gPd;];> fj;jhpf;fha;> Glyq;fha;> fhul; > mtiuf;fha;> Mfpatw;iy cztpy; Nrh;j;Jf; nfhs;s Ntz;Lk;. fPiu tiffs; kw;Wk; goq;fs;> Mg;gps;> jpuhl;ir > khk;gok;> MuQ;R> khJsk;gok;> itl;lkpd; C kw;Wk; E epiwe;Js;sJ. ,J Neha; njhw;W vjph;g;G fhuzpahfTk; EiuaPuy; jirfis ghJfhf;fTk; cjTfpwJ.

- ePz;lfhy Rthr milg;G Neha; cs;sth;fs; kPd; tiffis rhg;gpltjhy; mjpYs;s xNkfh 3 Ngl;bMrpl; EiuaPuiy ghJfhf;f cjTfpwJ.
- thA cs;s nghUl;fshd Kl;ilNfh]; > Fr;rpf;fpoq;F> fhspgpsth;> gPl;&l;> fhul;> cUisf;fpoq;F> mjpfkkhd mstpy; gUg;G tiffs; mjpfkhf cz;gjdhy; tapw;wpy; Vw;gLk; thA Nfhshhpdhy; %r;R jpzwy; Vw;gl tha;g;Gs;sJ.
- vYkpr;ir> jf;fhsp> khJsk;gok;> jpuhl;ir goq;fs; mjpfkhf rhg;gpl;lhy. %r;R jpzwy; mjpfhpf;f tha;g;Gs;sJ.
- Fsph;e;j czT tiffs; mjhtJ I];fphPk;> Fsph;ghdq;fs; mjpfkhf cz;gjpdhy; ,Uky; Vw;glf;$Lk;. B> fhgp> Nrhlh Fbg;gij jtph;f;f Ntz;Lk;. Cg;G mjpfkhf cl;nfhs;tij jtph;f;f Ntz;Lk;.
- czT cz;Zk; nghOJ rhpahd epiyapy; mkh;e;J czT cz;z Ntz;Lk;. Rygkhd Kiwapy; nkd;W tpOq;Fk;> nrhpkhdj;jpw;Fk; Vw;w cztpid cl;nfhs;s Ntz;Lk;. #lhd czT rhg;gpl;lhy; ,Wfpa epiyapYs;s Nfhis Rug;Gfs; ,sfpa epiyf;F nfhz;L tUtjdhy; %r;R jpzwy; FiwfpwJ. rj;jhz czT kw;Wk; Gjpjhf thq;fpa fha;> goq;fs; kl;LNk cgNahfpf;f Ntz;Lk;.
- xU ehisf;F 6Kjy; 9 lk;sh; nfhjpj;J Mwitj;j jz;zPiu vLj;Jf; nfhs;s Ntz;Lk;. cztpid %d;W Ntis vd;W mjpfkhf cz;zhky; rpwpJ rpwpjhf ,ilntsp tpl;L %d;W Kiw vd;gij MW Kiwahf gphpj;J cz;zyhk;. mjpfkhd czT cl;nfhs;Sk; NghJ %r;Rj;jpzwy; Vw;gLk;.

kUe;Jfs;:

kUe;Jfs; Kiwahf cl;nfhs;Sk; NghJ

- Nehapd; mwpFwpfs; fl;Lg;gLj;jg;gLfpwJ.

- md;whl gzpfis jpwd;gl nra;a cjTfpwJ
- Nehapd; jd;ik fLikahjiy jLf;fpwJ
- nghJthd cly; MNuhf;fpaj;ij Nkk;gLj;JfpwJ.

nghJthd kUe;Jfs;:

Rthrf;Fohia tphptila nra;Ak; kUe;Jfs; ,it Rthr Fohia tphptila nra;tjd; %yk; %r;R jpzwiy Fiwf;fpwJ.

Neha; vjph;g;G rf;jp kUe;J:

- ,it Neha; njhw;iwf; Fiwj;J EiuaPuiy ghJfhf;fpwJ.
- ,Uky; kUe;J ,Ukiy kl;Lk; Fiwg;gjy;yhky; %r;R Foha;fspy; Vw;gLk; tPf;fj;ijAk; Fiwf;fpwJ

kUe;J cl;nfhs;Sk; NghJ filgpbf;f Ntz;ba nghJthd Kiwfs;:

- czT rhg;gpl;lgpd; kUe;J rhg;gpLjy; Ntz;Lk;
- rhpahd Neu ,ilntsp tpl;L fhiy khiy vd;W chpa Neuj;jpy; rhg;gpl Ntz;Lk;
- kUj;Jthpd; MNyhridapd; Nghpy; kUe;Jfis vLf;f Ntz;Lk;.
- kUe;J rhg;gpl;lTld; neQ;rpy; milg;G Fsph; fha;r;ry; cly; Nky; nghhpe;J fhzg;gLjy; Nghd;w mwpFwpfs; ,Ug;gpd; clNd kUj;Jtiu mZfTk;
- khj;jpiufspy; Fwpg;gpl;l KbTfhyj;jpwF gpwF mk;kUe;jpid cl;nfhs;sf; $lhJ.

NghJkhd Xa;T kw;Wk; J}f;fk;:

ePz;l fhy rthr milg;G Nehapdhy; ghjpf;fg;gl;lth;fspd; kpfTk; Kf;fpakhd gpur;rid J}f;fkpd;ik MFk;

J}f;fkpd;ikapd; fhuzq;fs;:

cwq;Fk; epiy:

J}q;Fk; NghJ Neuhd epiyapy; gLf;f ,ayhky; cl;fhh;e;j epiyapy; cwq;Ftjhy; rhpahd cwf;fk; ,Ug;gjpy;iy.

kUe;Jfs;:

kUe;Jfspy; gf;f tpisthd J}f;fkpd;ik kw;Wk; xa;tw;w epiy Vw;gLfpwJ.

kdepiy:

ePz;l fhy ,e;Nehapdhy; f\;lg;gLtjdhy; ftiy kw;Wk; kdNrhh;tpw;F cs;shtjhy; cwf;fkpd;ik Vw;gLfpwJ. %r;Rj;jpzwy; Vw;gLtjhy; ePz;l Neuk; cwq;f Kbahj epyik Vw;gLfpwJ.

filgpbf;f Ntz;ba topKiwfs;:

- kUe;Jfis Kiwahf cl;nfhs;s Ntz;Lk;.
- tPl;bid fhw;Nwhl;lkhf itj;Jf; nfhs;s Ntz;Lk;.
- nghJthf cztpw;F Kd;Gk;> gpd;Gk;> 30 epkplk; Xa;T vLf;f Ntz;Lk;
- nghJthf vl;L kzp Neuk; ,utpy; cwq;f Ntz;Lk;.
- cwf;fj;jpw;F Kd; gbg;gNjh> b.tp. ghh;g;gNjh $lhJ.
- kjpa Neuk; cwq;Ftij jtph;f;f Ntz;Lk;. ,ad;w clw;gapw;rpfis Nkw;nfhs;s Ntz;Lk;.
- B>fhgp> Mfpatw;iw cwq;Ftjw;F 5 kzp Neuj;jpw;F Kd; vLj;Jf; nfhs;s Ntz;Lk;.

rhpahd Ra guhkhpg;G ,y;yhjjhy; Vw;gLk; tpisTfs;:

- Fiwghlhd Cl;lr;rj;J
- %r;R kz;lyk; rhh;e;j njhw;W
- %r;R kz;ly nraypog;G
- ,Uja Neha;

jLg;G Kiwfs;:

- Gif gpbj;jiy jtph;j;jy;
- Gifg;gpbj;jy; clYf;F Mgj;J tpistpf;f $ba gpur;ridf;FhpaJ vd;W Nehahspaplk; vLj;Jiuj;jy;
- Gifg;gpbg;gij epWj;j KbT vLf;f Ntz;Lk;
- Gifgpbj;jiy epWj;j rpy top Kiwfs;
- xU ehspy; vj;jid kw;Wk; vt;tsT Kiw Gifg;gpbf;fpwhh; vd;W gjpT nra;a Ntz;Lk;
- Gif gpbf;Fk; NghJ Gifia cs;spOg;gijAk;> Mokhf ,Og;gijAk; jtph;f;f Ntz;Lk;.
- Gif gpbf;f Ntz;Lk; vd;w vz;zk; tUk; NghJ me;j Neuj;jpy; kpl;lhNah> Vyf;fha; ,tw;wpy; VNjDk; xd;iw rhg;gplyhk;.
- mjpfkhd ePh; Fbf;f Ntz;Lk;
- Gifgpbf;Fk; vz;zk; tUk; NghJ me;j Neuj;jpy; kdij NtW VjhtJ Ntiyapy; <LgLj;j Ntz;Lk;.
- ez;gh;fs; fl;lhag;gLj;jp rpfnul; Fbf;f nrhy;Yk; NghJ Ntz;lhnkd;Wk; kw;Wk; Gifg;gpbf;Fk; mth;fSld; goFtij jtph;f;f Ntz;Lk;. Gifg;gpbg;gij epWj;jpath;fis xd;whf;fp mth;fSila mDgtq;fis gfph;e;J nfhs;Sjy;
- Gifg;gpbj;jiy epWj;Jtjpy; xU rpy njhe;jpuTfs; Vw;gl tha;g;Gs;sJ. mjhtJ jiytyp> Ntiyfspy; ftdkpd;ik vhpr;ry; kw;Wk; gy
- Gifg;gpbg;gij epWj;jpath;fsplk; vLj;J $w Ntz;baJ ,e;j tpisTfnsy;yhk; xU rpy ehl;fSf;Fs; rhpahfp tpLk; kw;Wk; kUj;Jt MNyhridia ehl Ntz;Lk;.

Rw;Wg;Gw #oy; fl;Lg;ghL:

- Rw;Wg;Gwj;ij Rj;jkhf itf;f Ntz;Lk;
- tPl;bw;Fs; Gifia jtph;f;f Ntz;Lk;
- tPl;il jpdKk; Rj;jk; nra;a Ntz;Lk;.
- J}Rs;s ,lj;jpy; ePiuf; nfhz;L my;yJ <uJzpiaf; nfhz;L Rj;jk; nra;a Ntz;Lk;
- tPl;bYs;s ,Uf;iffs; ehw;fhypfs;> Nkirfs;> gLf;iffs; Mfpatw;iw rpwpJ Neuk; #hpa xspapy; gLkhW itf;f Ntz;Lk;.
- Gifapy;yh mLg;ig my;yJ thA mLg;ig gad;gLj;j Ntz;Lk;
- rikayiwapy; Gif Nghf;fp my;yJ fhw;whb itf;f Ntz;Lk;
- rikayiw fhw;Nwhl;lkhf ,Uf;f Ntz;Lk;
- ePz;l Neuk; rikayiwapy; ,Ug;gij jtph;f;f Ntz;Lk;
- tPl;il fhw;Nwhl;lkhf itf;f Ntz;Lk;
- Njitaw;w nghUis vhpf;Fk; NghJ mjdUfpy; ,Ue;jhy; nkypjhd Jzpapy; %f;F kw;Wk; thia %l Ntz;Lk;.
- Fsph; fhyq;fspy; fhJ> %f;F> tha; Mfpatw;iw Jzpahy; %l Ntz;Lk;
- Fsph;e;j ePhpy; Fspf;ff; $lhJ

njhlh; kUj;Jt ghpNrhjid:

njhlh; kUj;Jth; Fwpg;gpl;l Njjpfspy; jtwhky; tUtJ gpd; tpisTfis jtph;f;Fk;.

fhar;ry; %r;Rj; jpzwy; rsp mjpfhpj;jy; Nghd;w mwpFwpfs; ,Ue;jhy; kUj;Jtiu mZf Ntz;Lk;.

KbTiu:

ePz;l fhy Rthr milg;G Neha; cs;sth;fs; kfpo;r;rpahfTk;> cah; jukhd tho;f;if tho Ntz;Lkhdhy; mjw;F mth;fs; rhpahd Ra Rj;jk; kw;Wk; gapw;rp Kiwfis filgpbf;f Ntz;Lk;. Ra guhkhpg;G Nehapd; jd;ikia Fiwj;J gpd; tpisTfs; Vw;glhky; ghJfhf;fpwJ.

ed;wp tzf;fk;

APPENDIX- -G

Structured Interview Schedule for assessing the knowledge of COPD patients regarding self care management.

TOOL

SECTION –A

This section requires some personal information. Each item has few options, please answer which you find as appropriate for you. The interviewer should put tick (✓)mark in the boxes corresponding questions.

DEMOGRAPHIC DATA

Sample No.

1. **Age (in Years)**
   - a. 21-30 ☐
   - b. 31-40 ☐
   - c. 41-50 ☐
   - d. 51-60 ☐

2. **Sex**
   - a Male ☐
   - b. Female ☐

3. **Marietal status**

a.married ☐

b. unmarried ☐

c.widower/widow ☐

d.Divorcee ☐

4. **Religion**

a.christian ☐

b.Hindu ☐

c.muslim ☐

5. **Educational status**

a. No formal education ☐

b. primary school education ☐

c. Higher secondary education ☐

d. Graduate ☐

6. **Occupation**

a.Self employee ☐

b.Government employee ☐

c.Private employee ☐

e. Unemployed ☐

7. **Type of family**

a. Nuclear family ☐

b. joint family ☐

c. Extended family ☐

8. **Monthly family in come**

a. BelowRs.2000 ☐

b. Rs.2001-4000 ☐

c. Rs.4001-6000 ☐

d. Rs. 6000and above ☐

9. **Residential area**

a. Urban ☐

b. Rural ☐

10. **Duration of illness**

a.2-5 years ☐

b.5-8 years ☐

c.8-10 years ☐

d.Above 10 years ☐

SECTION-B

STRUCTURED INTERVIEW SCHEDULE

It deals with questions regarding knowledge of COPD patients regarding self care management of COPD. It has four options, I will read the questions and answers, you have to select the answers that suits you.

1. What is meant by chronic obstructive pulmonary disease?
   - **a. Progressive obstruction of airways**
   - b. Infection of the lungs
   - c. Fluid present in the lungs
   - d. Disruption of blood supply to the lungs ☐
2. What is the major risk factor of COPD ?
   - **a. Cigarette smoking**
   - b. Alcohol
   - c. Intake of fatty foods
   - d. Betel chewing ☐
3. Which one of the following is main clinical feature of COPD ?
   - a. Vomiting
   - b. **Breathlessness**
   - c. sneezing
   - d. Fever ☐
4. What is the characteristic of sputum in COPD?
   - a. **mucoid**
   - b. Bloody
   - c. Frothy
   - d. Yellowish ☐

5. When the wheezing sound is observed in COPD ?

   a. During deep inspiration

   b. **During expiration**

   c. During cough

   d. During sleep

6. Which one of the following to be included as breathing exercise ?

   a. shallow and strenuous breathing

   b. Rapid chest breathing and mouth breathing

   c. **Diaphragmatic and pursed lip breathing**

   d. Chest breathing and abdominal breathing

7. What is the purpose of breathing exercise ?

   a. To improve circulation

   b. To retain secretions

   c. To improve oxygenation

   d. To increase respiratory rate

8. How should the lips be positioned in pursed lip breathing?

   a. **whistling position**

   b. widely open

   c. closed

   d. Half closed

9. How many breathings to be performed in each time for pursed lip breathing?

   a. 4 to 5 inspirations and expirations

   b. 5 to 7 inspirations and expirations

   c. **8 to 10 inspirations and expirations**

   d. 10 to12 inspirations and expirations

10. What is the position for diaphragmatic breathing ?

    a. side lying

    b. **sitting position**

    c. Lying flat on the bed

    d. Lying on the the abdomen

11. What is the position of the hands during diaphragmatic breathing ?

    a. To keep hands free

    b. **On the lower part of the mid chest**

    c. Over the abdomen

    d. on the hips

12. What is the frequency of performing breathing exercises in a day?

    a. **4 or 5 times**

    b. 3 to 4 times

    c. 6 to 8 times

    d.2 to 3 times

13. What is the purpose of coughing technique?

    a. To improve oxygenation

    b. To improve lung expansion

    c. **To clear the secretions from airways**

    d. To improve circulation

14. Which method is more suitable for coughing technique?

    a. **Deep breath and low pressure cough**

    b. Shallow cough

    c. Deep cough

    d. Continuous cough

15. Why coughing techniques to be performed after deep breath?

a. It stimulates heart rate

b. It minimizes wheezing

c. It stimulates the airflow

d. **It mobilizes the retained secretions** ☐

16. What is the correct method of coughing during coughing technique?

a. During inspiration

b. **During expiration**

c. After inspiration

d. After expiration ☐

17. How many coughs to be performed in one time during coughing technique?

a. 1 or 2 coughs

b. **3 or 4 coughs**

c. 4 or 5 coughs

d. 5 or 6 coughs ☐

18. What is the purpose of aerosol nebulisation therapy?

a. **Dilates the airways**

b. Reduces cough

c. Increases respiratory rate

d. Accumulates secretions ☐

19. How will you hold the inhaler?

a. Downward

b. **Upward**

c. Right lateral ☐

d. Left lateral

20. When the metal canister to be pressed during nebulisation?

    a. The end of expiration
    b. The beginning of the expiration
    c. The end of inspiration ☐
    d. **The beginning of inspiration**

21. Why the breath should be held after inhaling , in use of metered dose inhaler?

    a. Maximum effect will be attained
    b. Reaches upper airways quickly
    c. Lung expansion will be attained
    d. Increases the respiratory rate ☐

22. How to exhale after nebulisation?

    a. Though mouth
    b. Through pursed lip
    c. Through wide mouth ☐
    d. **Through Nose**

23. Which part to be cleaned thoroughly after use of inhaler?

    a. Metal canister
    b. Cover
    c. Top part ☐
    d. **Mouth piece**

24. What is the complication of nebulisations?

    a. Diarrhea
    b. Vomiting
    c. **Oral thrush** ☐
    d. Edema

25. What is the purpose of dietary management of COPD?

a. **To rebuild muscles**

b. To improve ventilation

c. To improve lung functions

d. To reduce dyspnea

26. Which type of nutritient component to be taken by COPD patients?

a. **High calorie,high protein**

b. High calorie, low protein

c. Low calorie, high protein

d. Low calorie, low protein

27. What type of foods to be avoided?

a. **Gas forming foods**

b. High protein foods

c. High calorie foods

d. High fiber foods

28. What type of vitamin intake protects the lung tissue?

a. Vitamin A

b. **Vitamin C**

c. Vitamin B

d. Vitamin B -12

29. What is the duration of sleep do you need per day?

a. 6 hours

b. **8 hours**

c. 10 hours

d. 12 hours

30. What is the benefit of taking medications?

a. It reduces fever

b. It increases pulse rate

c. **It improves airflow** ☐

d. It increases blood flow

31. When the medications should be taken?

a. Before food

b. Along with food

c. **After food**

d. In between two meals ☐

32. What is the complication of poor self care management in COPD?

a. Involvement of upper respiratory tract

b. **Involvement of heart**

c. Involvement of liver

d. Involvement of GI tract ☐

33. Which one of the following is a preventive measure to be taken for COPD conditions?

a. **Smoking cessation and control of environmental factors**

b. Control of diet and smoking cessation

c. Control of obesity and diet ☐

d. Control of exercise and diet

34. Which one of the following indoor environmental factor to be controlled?

a. Providing dust free and ventilated house

b. **Smoke and fumes**

c. sweeping and mopping the floor

d. Non-smoke cooking stoves ☐

35. Why regular follow up is necessary for COPD patient?

a. To prevent complications

b. To Prevent stress

c. To cure the disease

d. To reduce discomfort

SECTION – C

Please read the following questions carefully and select the answer and place a tick (✓) in appropriate space provided on the right side in questions.

PRACTICE REGARDING SELF CARE MANAGEMENT OF COPD.

S. No	Statements	Always	Most often	sometimes	Rarely	Not at all
		4	**3**	**2**	**1**	**0**
1	Perform breathing exercises 4 -5 times daily					
2	Perform coughing exercise 4-5 times a day					
3	Performs oral hygiene after inhaler use.					
4	Takes diet rich in calories and proteins					
5	Eats fresh fruits and vegetables					
6	Takes food and fluids warm					
7	* Takes complete meal three times a day					
8	Sleeps 8 hours a day					
9	Avoids smoke and closed environment					
10	* Temporary stopping smoking cigarettes cures the disease					
11	Takes medication regularly					
12	Consults physician on proper follow up dates					
13	* Takes bath in cold water					
14	* It is not necessary to avoid crowded places					
15	* Consumes ice creams and fried foods.					

*** - Negative Statements**

gFjp - m

,g;gFjp rKjha Fwpg;Gfis gw;wpaJ xt;nthU Nfs;tpf;Fk; rpy tpilfs; nfhLf;fg;gl;Ls;sJ. Rhpahd tpilf;F (✓) vd;w FwpaPl;il mspf;fTk;.

thpir vz; :-

1. Nehahspapd; taJ
   - m) 21 - 30 tUlq;fs;
   - M) 31-40 tUlq;fs;
   - ,) 41- 50 tUlq;fs;
   - <) 51 - 60 tUlq;fs;

2. ghypdk;
   - m) Mz;
   - M) ngz;

3. jpUkzj;jFjp
   - m) kzkhdth;
   - M) kzkhfhjth;
   - ,) tpjit
   - <) tpthfuj;jhdth;

4. kjk;
   - m) fpwp];jth;
   - M) ,e;J
   - ,) K];yPk;

5. fy;tpj;jFjp ☐
   m) Kiwrhuh fy;tp ☐
   M) njhlf;ff;fy;tp ☐
   ,) cah;epiyf;fy;tp ☐
   <) gl;l gbg;G ☐

6. njhopy; ☐
   m) Ranjhopy; ☐
   M) muRg;gzp ☐
   ,) jdpahh; gzp ☐
   <) Ntiy ,y;yhjth; ☐

7. FLk;g tif ☐
   m) jdp FLk;gk; ☐
   M) $l;L FLk;gk; ☐
   ,) tphpthf;fg;gl;l FLk;gk; ☐

8. khj tUkhdk; (&ghapy;) ☐
   m) 2000f;Fk; fPo; ☐
   M) 2001 - 4000 ☐
   ,) 4001 - 6000 ☐
   <) 6000f;Fk; Nky; ☐

9. trpf;Fk; gFjp ☐
   m) efuk; ☐
   M) fpuhkk; ☐

10. cly;epiy rhpapy;yhj fhyk; ☐
   m) 2 - 5 tUlq;fs; ☐
   M) 5-8 tUlq;fs; ☐
   ,) 8-10 tUlq;fs; ☐
   ☐

<) 10 tUlq;fSf;F Nky;

gFjp - M

tiuaWf;fg;gl;l Neh;fhzy;

ePz;lfhy Rthr milg;G Nehapd; Raftdpg;gpd; mwpTj;jpwd; rhh;e;j Nfs;tpfs;> ehd;F tpilfs; nfhLf;fg;gl;Ls;sd. rhpahd tpilia Njh;e;NjLf;fTk;.

1. ePz;lfhy Rthr milg;G Neha; vd;why; vd;d? ☐
   m) njhlh;r;rpahf Rthr Foha; milj;jy;
   M) EiuaPuy; njhw;W Neha;
   ,) EiuaPuypy; ePh; Nfhh;j;Jf; nfhs;Sjy;
   <) EiuaPuYf;F nry;Yk; ,uj;j Xl;lk; jilgLjy;
2. vJ ePz;l fhy Rthrmilg;G Nehapd; ngUk;ghz;ikahd fhuzk;? ☐
   m) Gif gpbj;jy;
   M) kJ mUe;Jjy;
   ,) nfhOg;Gr;rj;Js;s cztpid cl;nfhs;Sjy;
   <) ntw;wpiy NghLjy;
3. fPo;f;fz;ltw;Ws; ePz;l fhy Rthrmilg;G Nehapd; Kf;fpakhd mwpFwp? ☐
   m) the;jp
   M) Ntiyapd; NghJ %r;Rjpzwy;
   ,) Jk;ky;
   <) fha;r;ry;
4. ePz;l fhy Rthr Nehapd; rspapd; Kf;fpakhd jd;ik? ☐
   m) jpl Nfhis
   M) ,uj;jk; fye;j rsp
   ,) Eiw
   <) kQ;rs; epw rsp

5. vg;nghOJ tprpy; Nghd;w rg;jk; ePz;l fhy Rthrmilg;G Nehapy; Nfl;Fk;? ☐

m) cl; Rthrj;jpd; NghJ

M) ntsp Rthrj;jpd; NghJ

,) ,Uky; tUk; NghJ

<) cwf;fj;jpd; NghJ

6. fPo;fz;ltw;wpy; Rthrg;gapw;rp Kiwfs; ahit? ☐

m) NkNyhl;lkhd Cf;fKs;s Rthrg;gapw;rp.

M) Ntfkhd khh;G Rthrk;> tho;T topahf Rthrpj;jy;

,) Ftpe;j cjL Rthrg; gapw;rp> cjutpjhd Rthrg;gapw;rp

<) khh;G Rthrg; gapw;rp> tapW Rthrg;gapw;rp

7. Rthrg;gapw;rp nra;Kiwapd; Kf;fpakhd gad;fs; ahit? ☐

m) ,uj;j Xl;lj;ij mjpfkhf;Fjy;

M) rsp Ruj;jiy cs;NsNa itj;jpUj;jy;

,) gpuhz thAit mjpfhpj;jy;

<) Rthr vz;zpf;ifia mjpfhpj;jy;

8. Ftpe;j cjL Rthrg;gapw;r;rp nra;Ak; NghJ cjil vt;thW itj;Jf; nfhs;s Ntz;Lk;? ☐

m) tprpy; mbg;gJ Nghy;

M) thia mfykhf jpwe;jthW

,) thia %bathW

<) ghjp thia milj;jJ Nghy;

9. xt;nthU Ftpe;j cjL Rthrg;gapw;rpapd; NghJ vj;jid Kiw %r;;R vLf;f Ntz;Lk;? ☐

m) 4 Kjy; 5 tiu

M) 5 Kjy; 7 tiu

,) 8 Kjy; 10 tiu

<) 10 Kjy; 12 tiu

10. ve;j epiyapy; cjutpjhd Rthrk; Nkw;f; nfhs;s Ntz;Lk;? ☐

m) gf;fthl;by; gLj;j epiy

M) Neuhf mkh;e;j epiyapy;

,) ky;yhe;J gLf;Fk; epiyapy;

<) Fg;Gwg;gLj;j epiyapy;

11. cjutpjhd Rthj;jpd; NghJ iffis vq;F itf;f Ntz;Lk;? ☐

m) rhjhuzkhf

M) eL khh;gpd; fPo; gFjpapy;

,) tapw;wpd; kPJ

<) ,Lg;gpd; kPJ

12. xt;nthU Rthrg;gapw;rpiaAk; xU ehisf;F vj;jid Kiw Nkw;nfhs;s Ntz;Lk;? ☐

m) 4 - 5 Kiw

M) 3 - 4 Kiw

,) 6 - 8 Kiw

<) 2 - 3 Kiw

13. ,Uky; gapw;rpapd; gad; vd;d? ☐

m) gpuhz thAit mjpfhpj;jy;

M) EiuaPuiy tphptila nra;jy;

,) Rthrg;ghijapypUe;J Nfhisia ePf;Fjy;

<) ,uj;j Xl;lj;ij mjpfg;gLj;Jjy;

14. ,Uky; gapw;rpapy;; ve;j tifahd ,Uky; Kiw kpfTk; rhpahdJ? ☐

m) nkJthd ,Uky;

M) Mo;e;j %r;nrLj;J Fiwe;j mOj;j ,Uky;

,) Mo;e;j ,Uky;

<) njhlh; ,Uky;

15. Mo;e;j fhw;W cs;spOj;j gpd; vjw;F ,Uky; gapw;rp nra;a Ntz;Lk;?

m) ,ja Jbg;ig Jhz;LfpwJ.

M) %r;Rj;jpzwiy Fiwf;fpwJ

,) %r;Rf;fhw;iw mjpfg;gLj;j Jhz;LfpwJ.

<) ciwe;j Nghd rspia efh;j;Jtjw;F cjTfpwJ.

16. ,Uky; gapw;rpapd; NghJ vg;nghOJ Kiwahf ,Uk Ntz;Lk;?

m) cl;Rthrj;jpd; NghJ

M) ntsp Rthrj;jpd; NghJ

,) cl; Rthrj;jpw;F gpwF

<) ntsp Rthrj;jpw;Fg; gpwF

17. ,Uky; gapw;rpapd; NghJ xt;nthU KiwAk; vj;jid jilit ,Uk Ntz;Lk;?

m) 1 my;yJ 2 Kiw

M) 3 my;yJ 4 Kiw

,) 4 my;yJ 5 Kiw

<) 5 my;yJ 6 Kiw

18. nraw;if Rthr kUj;Jt rpfpr;irapd; gad;fs; vd;d?

m) Rthrghijia tphptila nra;fpwJ

M) ,Ukiy Fiwf;fpwJ

,) Rthr vz;zpf;ifia mjpfhpf;fpwJ

<) Nfhisia jf;f itf;fpwJ

19. ,d;N`yiu gpbf;Fk; Kiw vd;d?

m) fPo;Nehf;fp

M) Nky; Nehf;fp

,) tyJ Gwkhf

<) ,lJ Gwkhf

20. ,d;N`yh; gad;gLj;Jk; NghJ cNyhf Ftisia ☐
vg;nghOJ mOj;j Ntz;Lk;?

m) %r;ir ntspapLk; NghJ

M) %r;ir ntspapl Muk;gpf;Fk; nghOJ

,) %r;ir cs;spOj;j gpwF

<) %r;ir cs;spOf;f Muk;gpf;Fk; nghOJ

21. nraw;if Rthr kUj;Jt rpfpr;irf;F gpwF %r;ir vjw;fhf ☐
gpbj;J nfhs;s Ntz;Lk;?

m) kUe;jpd; KO nray;ghl;il miltjw;F

M) kUe;J Nky;%r;Rf;Fohia tpiuthf miltjw;F

,) EiuaPuy; gFjp tphptiltjw;F

<) Rthr vz;zpf;ifia mjpfhpg;gjw;F

22. ,d;N`yh; vLj;j gpwF vt;thW %r;ir ntspapl Ntz;Lk;? ☐

m) tha; topahf

M) Ftpe;j cjL topahf

,) mfd;w tha; topahf

<) %f;F topahf

23. ,d;N`yh; gad;gLj;jpa gpd;G ve;jghfk; Rj;jk; nra;ag;glNtz;Lk;? ☐

m) cNyhf Ftis

M) %b

,) tha;g;gFjp

<) Nky;ghfk;

24. nraw;f;if Rthr kUj;Jt rpfpr;irapdhy; Vw;g;gLk; gf;f tpisT vd;d? ☐

m) tapw;Wg; Nghf;F
M) the;jp
,) tha;g;Gz;
<) tPf;fk;

25. ePz;l fhy Rthr milg;G Neha;f;F czT rpfpr;ir Kiwapd; gad; vd;d? ☐

m) rijia kPz;Lk; mjpfg;gLj;j

M) ,uj;j Xl;lj;ij mjpfg;gLj;j

,) EiuaPuy; khh;G tphpjiy mjpfg;gLj;j

<) %r;Rj; jpdwiy Fiwf;f

26. ePz;l fhy Rthr milg;G Nehahspapd; ve;j tifahd czit cl;nfhs;syhk;? ☐

m) mjpf nray; jpwd; kw;Wk; Gujk;

M) mjpf fNyhhp kw;Wk; Fiwe;j Gujk;

,) Fiwe;j rf;jp kw;Wk; mjpf Gujk;

<) Fiwe;j nray;jpwd; kw;Wk; Fiwe;j Gujk;

27. ve;j tpjkhd czit jtph;f;f Ntz;Lk;? ☐

m) thAit cUthf;Fk; czT

M) mjpf Gujk;

,) mjpf nray;jpwd; czT

<) mjpf ehh;r;rj;J cs;s czT

28. ve;j tifahd czT EiuaPuiy ghJfhf;Fk;? ☐

m) itl;lkpd; V M) itl;lkpd; rp

,) itl;lkpd; gp <) itl;lkpd; gp_{12}

29. xU ehisf;F vt;tsT Neuk; J}q;f Ntz;Lk;? ☐

m) 6 kzpNeuk; M) 8 kzpNeuk;

,) 10 kzpNeuk; <) 12 kzpNeuk;

30. kUe;J cl;nfhs;tjhy; gad; vd;d? ☐

m) fha;r;riy Fiwj;jy;

M) ehbj;Jbg;ig mjpfhpj;jy;

,) %r;Rf;fhw;iw mjpfhpj;jy;

<) ,uj;j Xl;lj;ij mjpfhpf;f

31. vg;nghOJ kUe;J cgNahfpf;f Ntz;Lk;?

m) czTf;F Kd;

M) czNthL

,) cztpw;F gpwF

<) ,uz;L Ntiy cztpw;F ,ilapy;

32. jtwhd Ra ftdpg;Gfspdhy; tUk; tpisTfs; ahit?

m) Nky;%r;Rf; Foha;f;F ghjpg;G

M) ,Uja ghjpg;G

,) fy;yPuiy ghjpf;fpwJ

<) czT Fohia ghjpf;fpwJ

33. fPo;f;fz;ltw;wpy; vit ePz;l fhy Rthr milg;G Nehapd; jLg;G Kiw?

m) Gif gpbg;gij jtph;j;jy; kw;Wk; Rw;Wg;Gw khRghl;il fl;Lg;gLj;Jjy;

M) Gifgpbg;gijAk;> czitAk; fl;Lg;gLj;Jjy;

,) cly; gUkidAk;> czitAk; fl;Lg;gLj;Jjy;

<) clw;gapw;rp czT fl;Lg;ghL

34. fPo;f;fz;ltw;wpy; ve;j mff; fhuzpfis tPl;by; fl;Lg;gLj;j Ntz;Lk;?

m) Rj;jkhd fhw;Nwhl;lkhd tPL

M) Gif kw;Wk; J}R

,) tPl;il ngUf;fp Jilj;J itj;jpUj;jy;

<) Gifapy;yh rikay; mLg;G

35. vjdhy; ePz;l fhy Rthr milg;G Nehahspfs; njhlh;e;J rpfpr;ir Kiwia gpd;gw;w Ntz;Lk;?

m) gpd; tpisTfis jtph;f;f

M) cly;/ kd cisr;riy jtph;f;f

,) Nehia Fzg;gLj;j >

<) cly; eykpd;ikia Fiwf;f

gFjp - ,

nray;top mwpTj;jpwid mwptjw;fhd Neh;fhdy;

fPo;f;fhZk; Nfs;tpfis ftdkhf thrpj;J> tyJ gf;fj;jpy; nfhLf;fg;gl;Ls;s ,lj;jpy; rhpahd Kiwapy; (✓) jpUj;jy; FwpaplTk;

t. vz;	nghUs;	vg;nghOJk;	mbf;fb	vg;nghOjhtJ	mhpjhf	xUNghJk; ,y;iy
1.	Rthrg;gapw;rpia jpdKk; 4 Kjy; 5 tiu nray;gLj;Jjy; Ntz;Lk;					
2.	,Uky; gapw;rpia xUehisf;F 4 Kjy; 5 Kiw nray;gLj;Jjy; Ntz;Lk;					
3.	,d;N`yh; cgNahfj;jpw;Fg;gpwF thia Rj;jk; nra;a Ntz;Lk;					
4.	mjpf fNyhhp kw;Wk; Gujrj;Js;s czT nghUl;fis cz;z Ntz;Lk;					
5.	ey;y epiyapy; cs;s Gjpa fha;fs; kw;Wk; gotiffis cz;zNtz;Lk;					
6.	czT kw;Wk; ePuhfhuq;fis ntJntJg;ghf cl;nfhs;sTk;					
7.	xUehisf;F %d;W Ntis KOahd czT cz;zNtz;Lk;					
8.	xUehisf;F vl;L kzpNeuk; cwq;fNtz;Lk;					
9.	Gif kw;Wk; fhw;Nwhl;lkpy;yhj Rw;WGw R+o;epiyia jtph;f;fTk;					
10.	jw;fhypfkhf Gifg;gpbj;jiy epWj;Jjy; Nehia Fzg;gLj;Jk;					

t. vz;	nghUs;	vg;nghOJk;	mbf;fb	vg;nghOjhtJ	mhpjhf	xUNghJk; ,y;iy
11.	kUe;Jfis Kiwahf cl;nfhs;s Ntz;Lk;					
12.	Fwpj;j Njjpfspy; kUj;Jt MNyhrid ngwNtz;Lk;					
13.	Fsph;e;j ePhpy; Fspf;f Ntz;Lk;					
14.	kf;fs; $l;lKs;s ,lq;fis jtph;f;fNtz;ba mtrpakpy;iy					
15.	l];fphPk; kw;Wk; nghhpj;j czTfis cl;nfhs;s Ntz;Lk;					

APPENDIX-H

ANSWER KEY
SCORES RELATED TO KNOWLEDGE REGARDING SELF CARE MANAGEMENT OF COPD

S. No	A	B	C	D
1	1	0	0	0
2	1	0	0	0
3	0	1	0	0
4	1	0	0	0
5	0	1	0	0
6	0	0	1	0
7	0	0	1	0
8	1	0	0	0
9	0	0	1	0
10	0	1	0	0
11	0	1	0	0
12	1	0	0	0
13	0	0	1	0
14	1	0	0	0
15	0	0	0	1
16	0	1	0	0
17	0	1	0	0
18	1	0	0	0
19	0	1	0	0
20	0	0	0	1
21	1	0	0	0
22	0	0	0	1
23	0	0	0	1
24	0	0	1	0
25	1	0	0	0
26	1	0	0	0
27	1	0	0	0
28	0	1	0	0
29	0	1	0	0
30	0	0	1	0
31.	0	0	1	0
32.	0	1	0	0
33.	1	0	0	0
34.	0	1	0	0
35.	1	0	0	0

s